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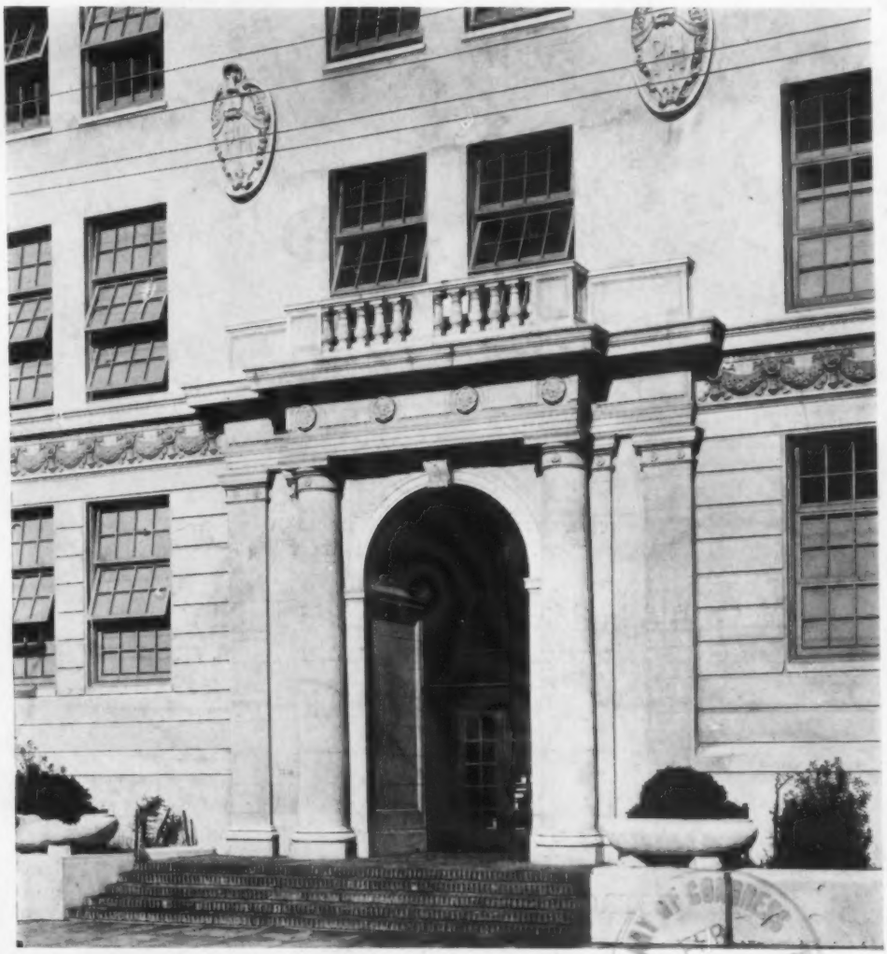

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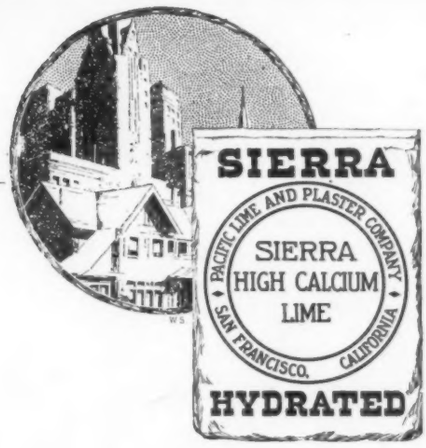

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LONDON—DECEMBER—AN IMPRESSION

[BY WILLIAM M. CLARKE]

EDITOR'S NOTE.—This is the first of a series of articles on Architecture in Europe by Mr. Clarke, well-known architect, who recently returned from an extensive tour abroad as a special representative of the Los Angeles Pressed Brick Company.

A DUN GRAY SKY, the sun an apricot disc hanging low above the Monument. To the left the beautiful spire, by Gibbs, of Saint Martins in the Fields, seen between the columns of the National Gallery. Across the square and in the hazy distance loom the towers of the House of Parliament, all softened by the silver gray mist.

Westminster Bridge, the river, now lighted by the sun escaping for a moment from behind a bank of clouds, is transformed into a magic stream of molten gold, with the shipping in purple silhouette, a subject that cannot be described in words and could only be interpreted by the brush of Turner.

The Embankment sweeping in a graceful curve towards Blackfriars Bridge, wheeling gulls in seemingly never-ending flight, and faintly outlined in the distance the beautiful dome of St. Paul's.

As we pass along New Bridge street, we chance to glance down a narrow passage, Brides Lane, and there, at the end standing clearly against the gray of the sky, Saint Brides, one of Wren's finest examples. We make our way down the lane and around the church through an arched passage into Salisbury Square to obtain another view of this masterpiece, and then hunt out other points of vantage along Fleet street.

One cannot but regret that this gem should be so encroached upon by other buildings that it is almost impossible to obtain point of view from which a comprehensive grasp of the entire mass can be obtained, and in fact this difficulty surrounds nearly all of Wren's work. How much more fitting it seems from the viewpoint of an architect that these encroaching buildings should be removed instead of eighteen of these works of Wren, as is being strongly advocated; the arguments being that as there are thirty-five of these churches and that as the land upon which the eighteen stand is so extremely valuable for commercial purposes, that they should be removed.

An American upon hearing this can not help but feel that we who are charged with being so very commercial in our viewpoint would certainly hesitate before we would destroy these beautiful examples of architecture. What a pity it is that if these churches are demolished that it is not practical for them to be reerected upon some other site. A strong counter influence is at work, and there is hope that many of the condemned will be saved.

Wren's city churches are a never-failing source of delight to one interested in architecture. While his problem was in most cases basically the same, he was invariably confronted with an irregular outline to his site and it is very interesting to study the manner in which he surmounted the difficulties imposed. In cases where the exterior, on account of surrounding buildings, would not show to advantage, he stressed the interior and in most cases where display could be made to advantage upon the elevations the interiors were treated in a more simple manner. In nearly all cases, however, the spire was the crowning glory of the design, and out of the great number that he erected no two are alike, varying from the lead-covered spire of Saint Martins, Ludgate, to the ornate stone steeple of Saint Mary-le-Bow in Cheapside, to the dignified and stately mass of Saint Paul's—and truly indicate the marvelous versatility of the man—when one considers that several of these churches were under course of construction during the period when the cathedral was building, it makes the wonder all the greater. Each one different from the other, yet all architectural gems, and well worthy of careful and individual study.

What a quaint charm one finds in the streets and byways of old London, all outlines so softened and subdued at this time of the year. Odd bits of architecture when you least expect to find them. Down a narrow, crooked passage, through a low arched opening into a tiny square with an old doorway at one side, the last vestige of a once pretentious building, along another street, a bit of old half timber crowded in between modern work. In St. Anne's Lane, a little

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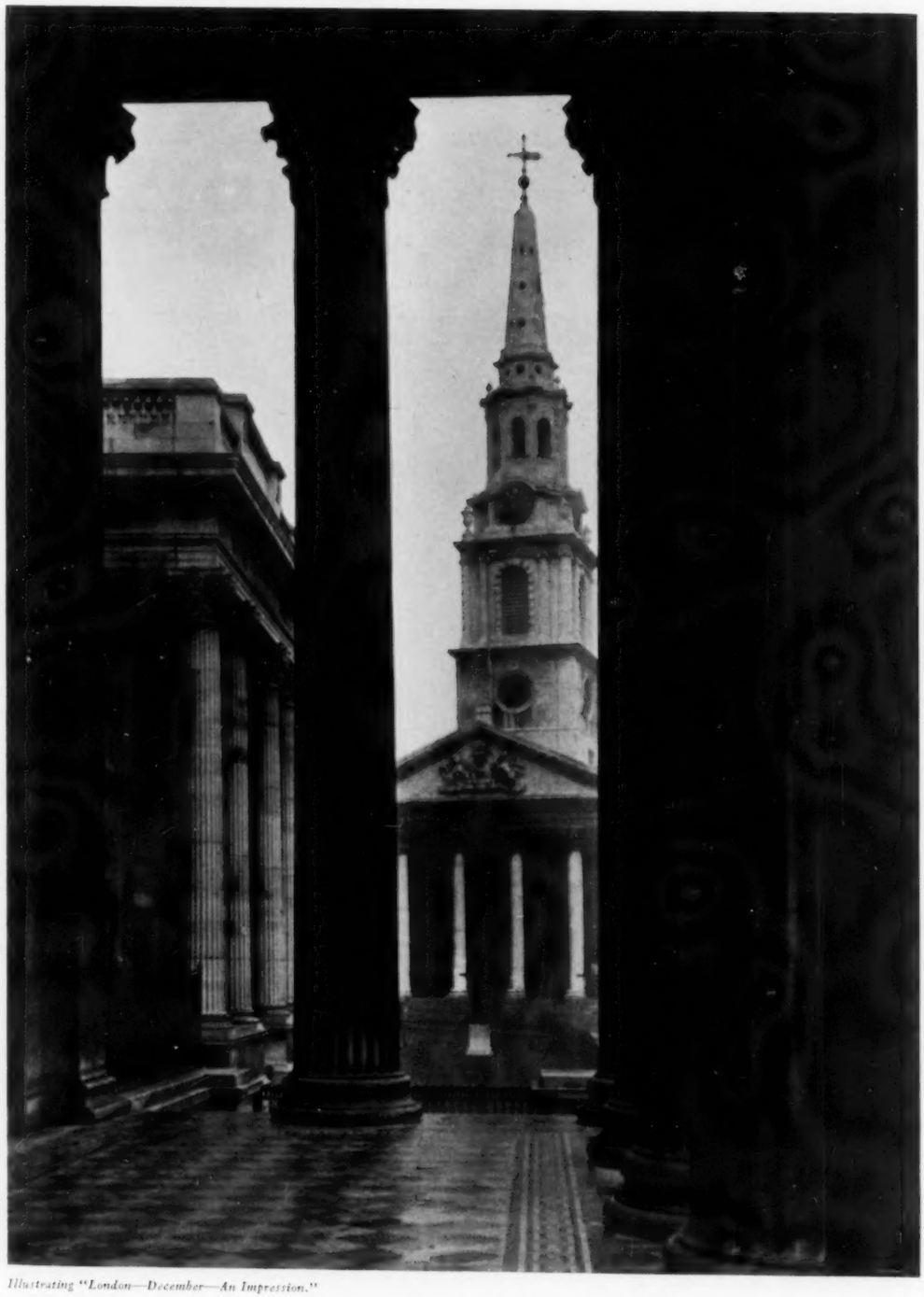
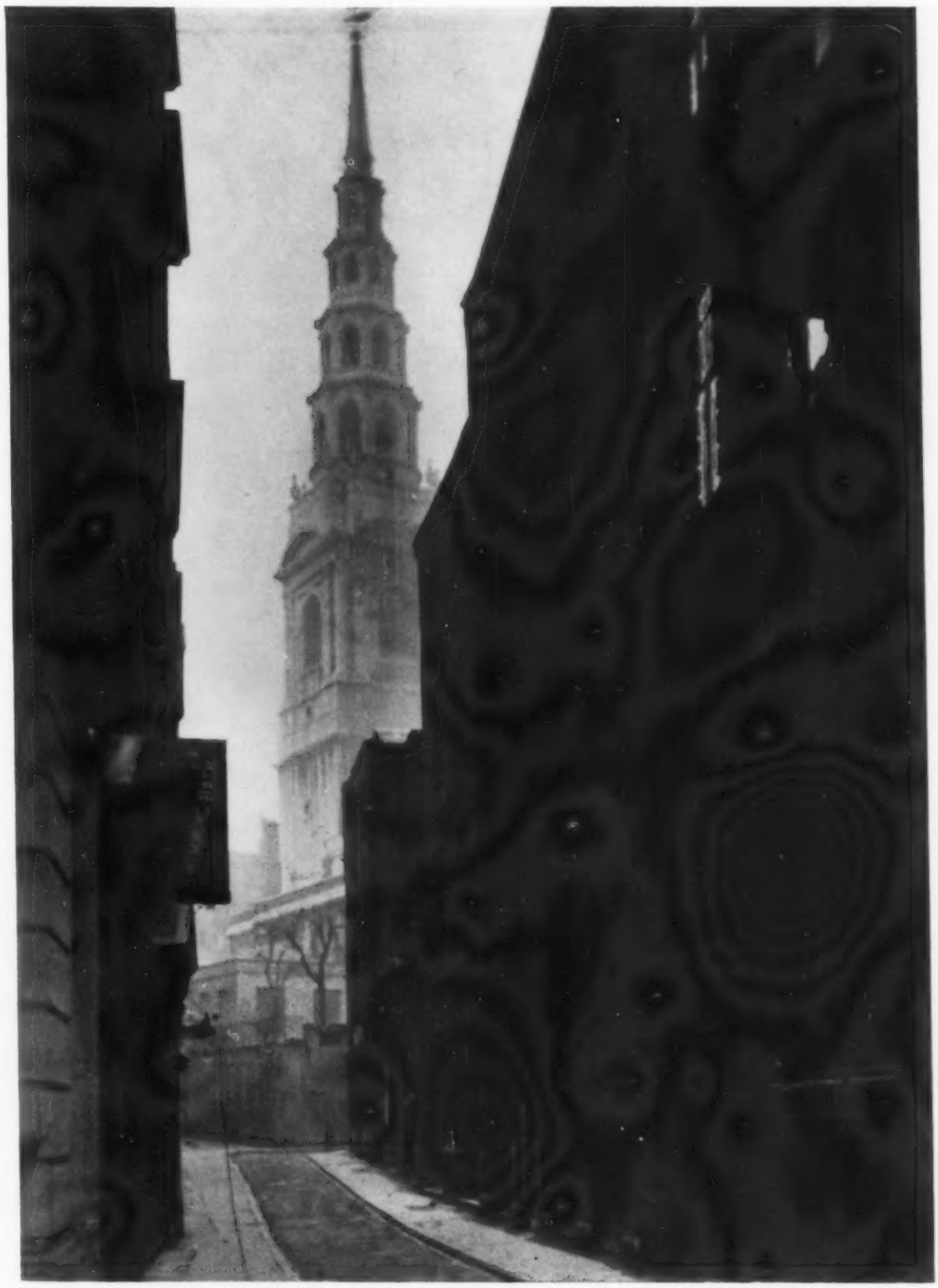


Illustrating "London—December—An Impression."

SAINT MARTINS IN THE FIELDS—BETWEEN THE COLUMNS OF THE NATIONAL GALLERY



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BRIDES LANE—AND SAINT BRIDES—ONE OF WREN'S FINEST EXAMPLES

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NEW SCHOOLS—NEW WINDOW-CONSCIOUSNESS

[BY GEORGE P. RICHARDSON]

THE advances which have been made in school design during the past few years have nurtured in the minds of those who plan schools a newer, greater window-consciousness. Architecturally as well as practically speaking, school windows are receiving more consideration in California than ever before—consideration that extends beyond mere appearance to durability of materials, efficiency of operation, maximum lighting and ventilating capacity, and ease of handling.

To this growing knowledge of fenestration, the steel window industry has been a generous contributor, and has led the way in the adaptation of window design to building architecture and light-and-ventilation requirements. Three distinct types of window for school buildings have been developed—the reversible, the counterbalanced, and the horizontally pivoted—each fulfilling a mission of its own.

All three types possess in equal measure the recognized advantages of steel windows, which include maximum glass area for the masonry opening size, freedom from warping or sticking, adequate ventilation and easy control. Such differences as there are among the three types arise from the general design and the arrangement of ventilators, corresponding to the sash of wood windows.

The type most generally used in California schools is the reversible, and this is really divided into two classes, designated, for convenience, "Type A" and "Type B." The former has large panes and few muntins, generally so located as to form a border of glass all around the large central portion, which may or may not be divided horizontally. The muntins, being of rolled steel, are trim, narrow lines that blend beautifully with any surroundings. This is the type of window to be preferred for severely plain exteriors.

Excellent ventilation is provided by the "Type A" window, as it is easily adjusted to any desired size of opening. The ease with which the ventilators are controlled means less expenditure of energy by the teacher whose responsibility it is to look after the comfort of her pupils.

An ingenious mechanism of the simplest sort is responsible for the perfect control of the sash. The large ventilators are attached at their upper corners by pivoting on shoes which slide in channels in the vertical muntins. These sliding shoes remain in the plane of the window and make the sash slide in such a way as to reverse themselves. This reversing process, from which the window gets its type designation, presents the exterior face of the ventilator or sash to a window-cleaner on the inside, making it a simple matter to wash the glass. At the same time ample opening is formed to permit one to reach out and polish the fixed panes.

The other member of the reversible family, the "Type B" window, appears to be a favorite with California school architects, and has been used in three schools in Oakland alone—the Columbia Park, Crocker Highland, and Prescott buildings. The McKinley School, at Stockton, has similar fenestration. Incidentally, the Detroit Steel Products Co. has established a Pacific Coast factory at Oakland, Calif., for the manufacture of steel windows exclusively.

In general, it can be said that reversible windows of this type are particularly well adapted for buildings of the more ornate sort, with stone or terracotta trim, for "Type B" windows are cut up into 12 in. by 18 in. or 14 in. by 20 in. lights. The ventilators operate in the same manner as these of "Type A"—on sliding shoes, with a self-reversing action—and are as easily cleaned from the inside of the building.

Library, Leland Stanford, Jr., University, Palo Alto, California.

The small lights make this window economical to maintain, as broken panes can be replaced at slight expense. Moreover, it is available in styles which provide 100 per cent ventilation, a fact which especially recommends it for use in open-air schools. Also, reversible windows close just as tightly as weather conditions may demand, being clamped shut by a cam-acting latch. In case sunlight enters too strongly at certain hours of the day, shading is a simple matter, for the out-swinging ventilators offer no interference with shades.

If taste or circumstances call for steel-window advantages with wood-window appearance, the counterbalanced steel window is the answer. As its name indicates, the two vertically sliding sash are balanced against each other; as the lower one is raised, the upper one is lowered, until the upper and lower edges of both coincide. Circulation of air is thus assured through two apertures, one near the top and the other at the bottom.

Flexibility in the arrangement of vertical muntins (no horizontal bars other than the framing and sash sections are used) is one of the architectural advantages of this type. One, two or three vertical muntins may be incorporated in a sash of a given size. As the number of muntins is increased, with consequent narrowing of the panes of glass, the impression of building height is strengthened; the fewer the muntins and the wider the individual lights, the greater the apparent width. This is fundamentally a window for severe, chaste architecture.

The counterbalanced window must be cleaned from the outside. Whatever advantage it possesses over the reversible type lies in the simplicity of its hardware and the greater ruggedness of its operating mechanism, with a resultant lower upkeep cost.

Similar in appearance to "Type B" reversible windows, yet with ventilators hung differently, the horizontally pivoted ventilator window finds its largest field of usefulness in libraries and auditoriums, as well as in manual training and shop instruction buildings. In this window, the ventilator or sash is pivoted horizontally, so that the lower half extends outward and the upper half inward, when opened.

This window is easily handled, although it lacks the

[Concluded on page 53]

Photographs by Gabriel Moulin.

PARKSIDE SCHOOL, SAN FRANCISCO. JOHN REID, JR., ARCHITECT

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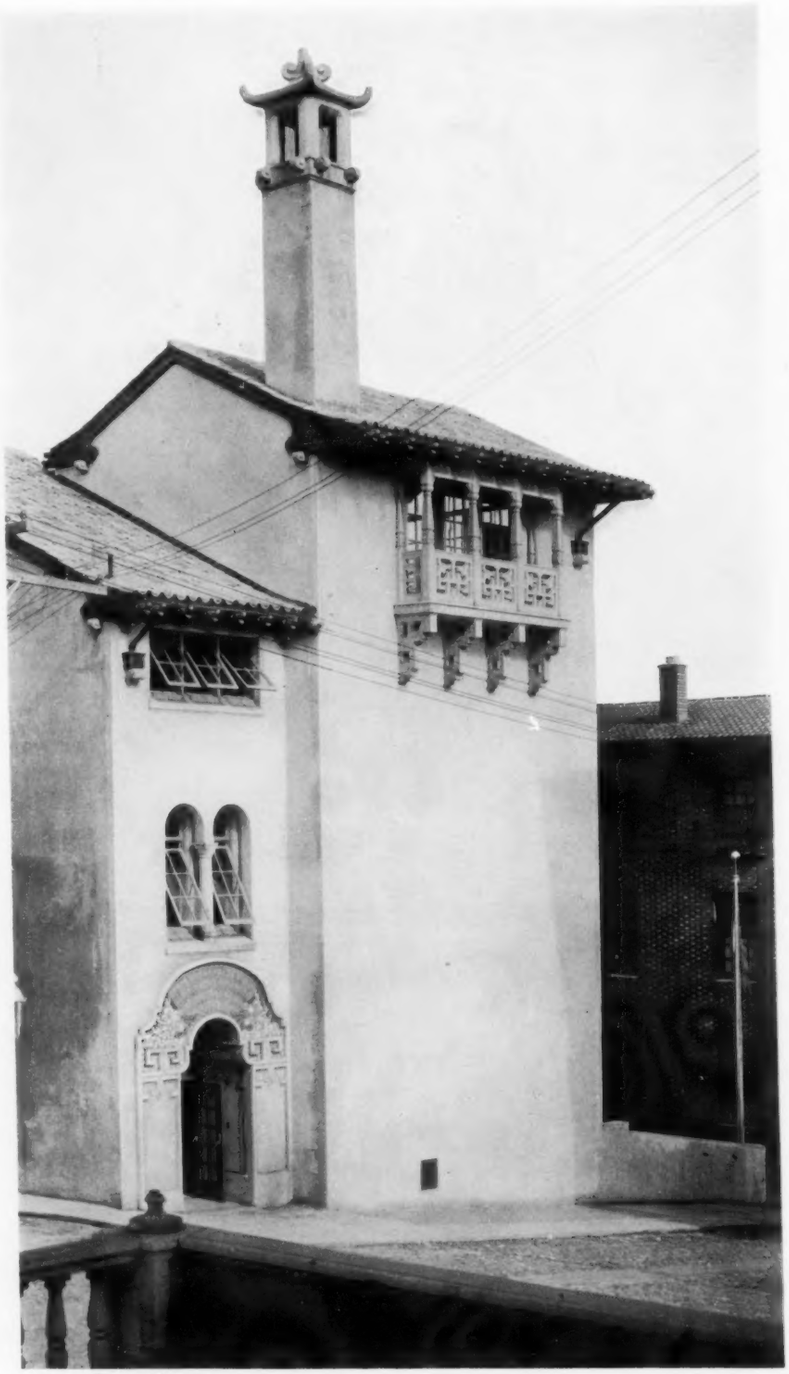
COMMODORE STOCKTON SCHOOL, SAN FRANCISCO. JOHN REID, JR., ARCHITECT



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COMMODORE STOCKTON SCHOOL, SAN FRANCISCO. JOHN REID, JR., ARCHITECT

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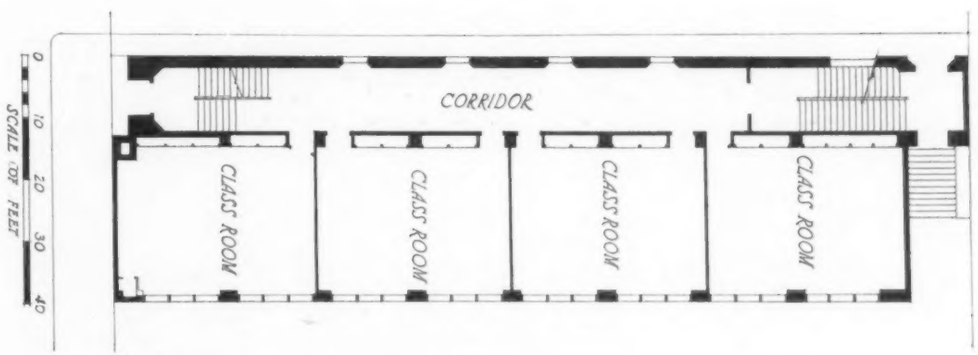

ABOVE—COMMODORE STOCKTON SCHOOL, SAN FRANCISCO. BELOW—PLANS, COMMODORE STOCKTON SCHOOL. JOHN REID, JR., ARCHITECT

FRANCISCO SCHOOL, SAN FRANCISCO, CALIFORNIA — JOHN REID, JR., ARCHITECT

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SAN FRANCISCO.
JOHN REID, JR., ARCHITECT

PACIFIC HEIGHTS SCHOOL,
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JOHN REID, JR.,
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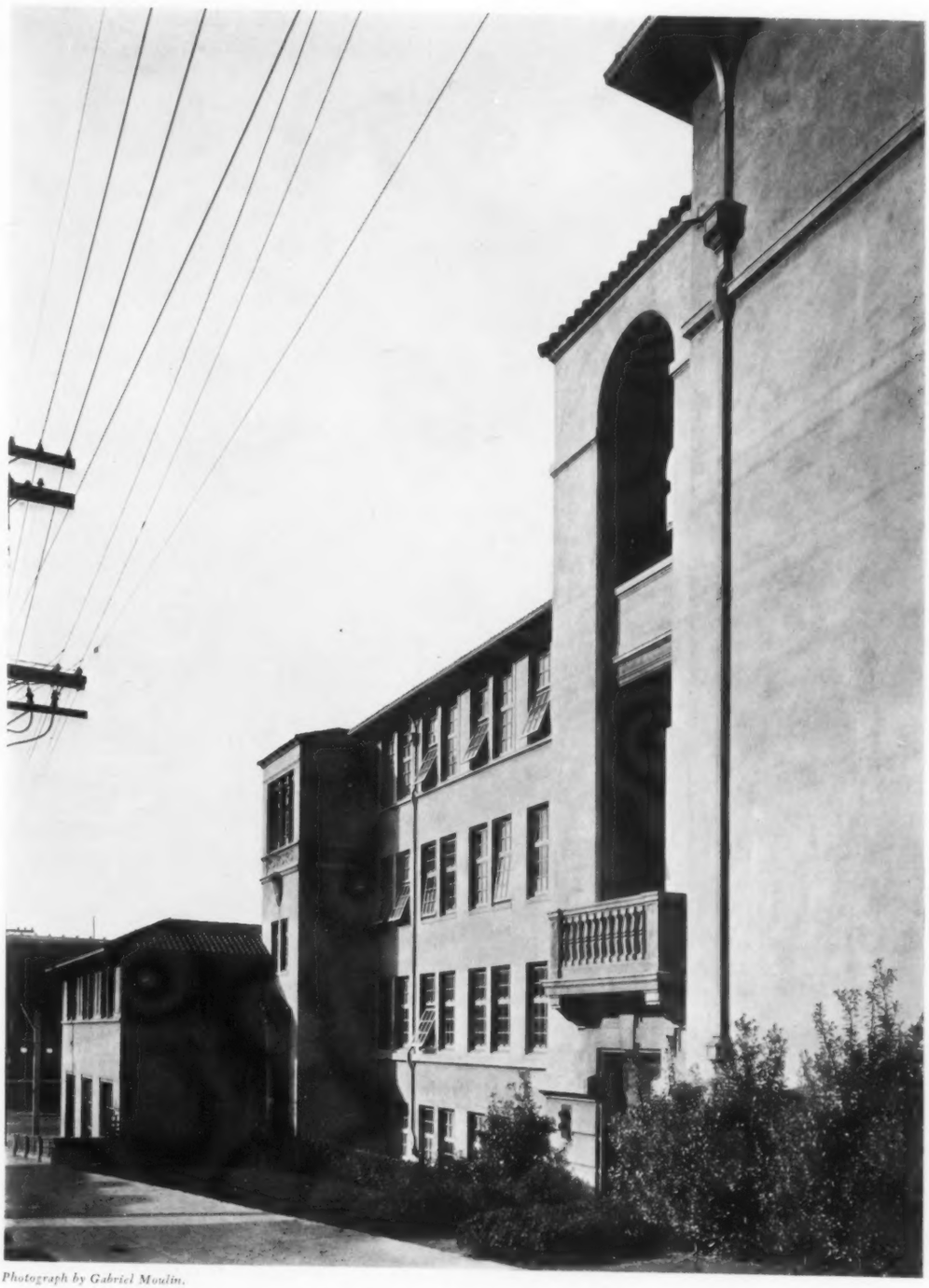

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GALILEO HIGH SCHOOL, SAN FRANCISCO. JOHN REID, JR., ARCHITECT

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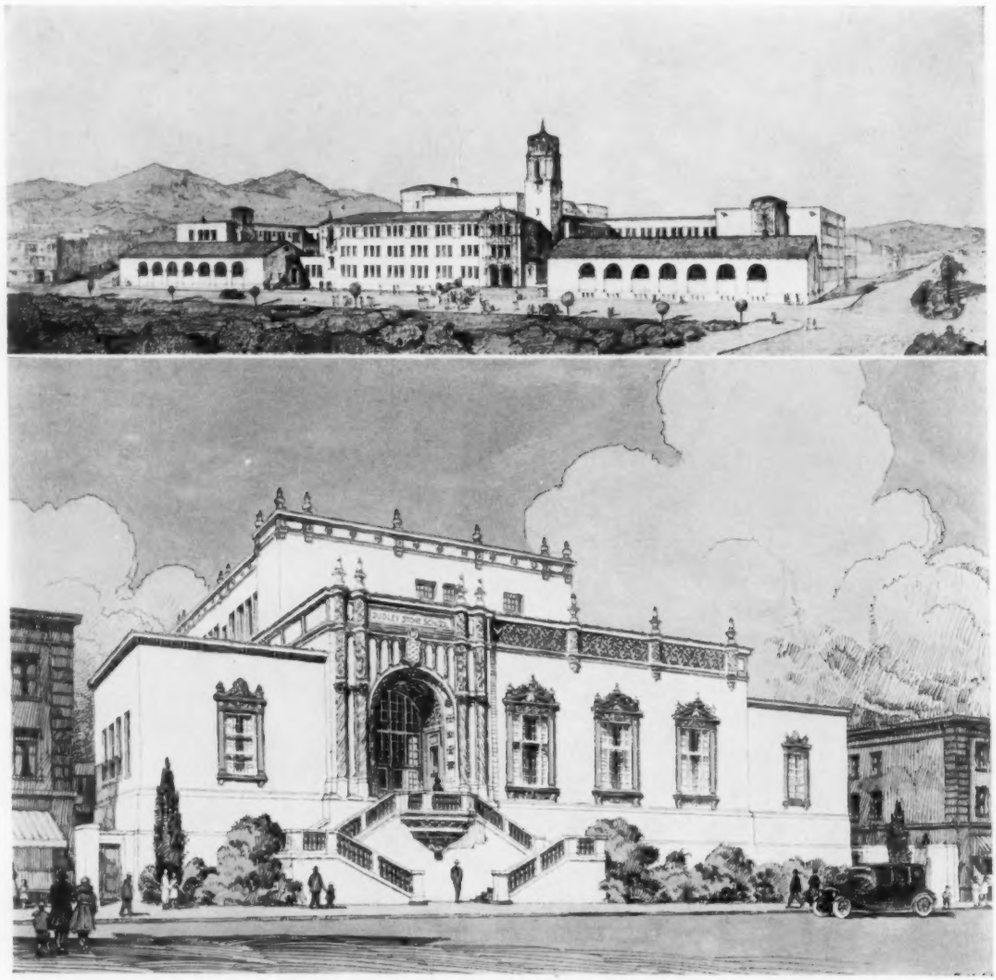
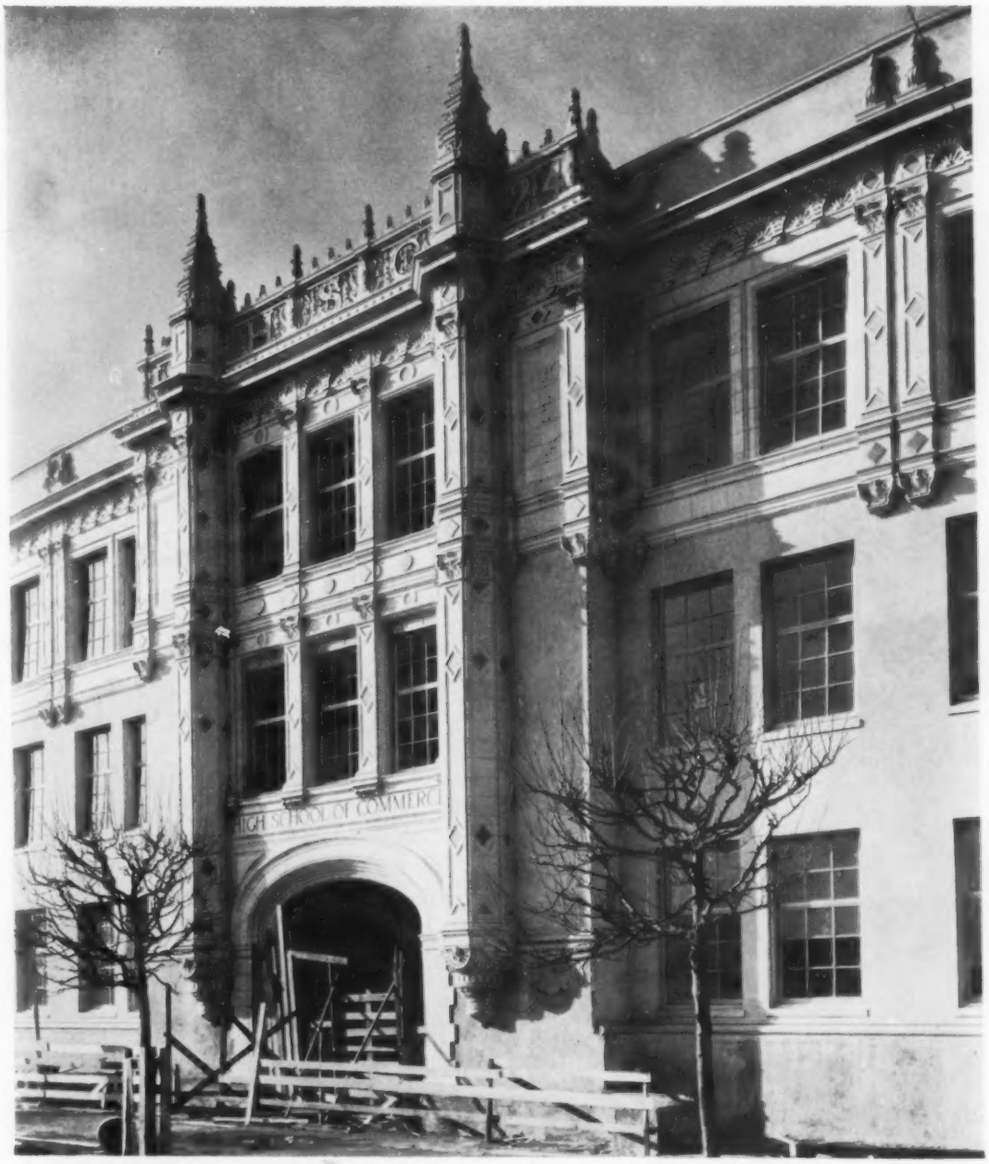


ABOVE—STUDY, MISSION HIGH SCHOOL, SAN FRANCISCO; BELOW—STUDY, DUDLEY STONE SCHOOL, SAN FRANCISCO.
JOHN REID, JR., ARCHITECT



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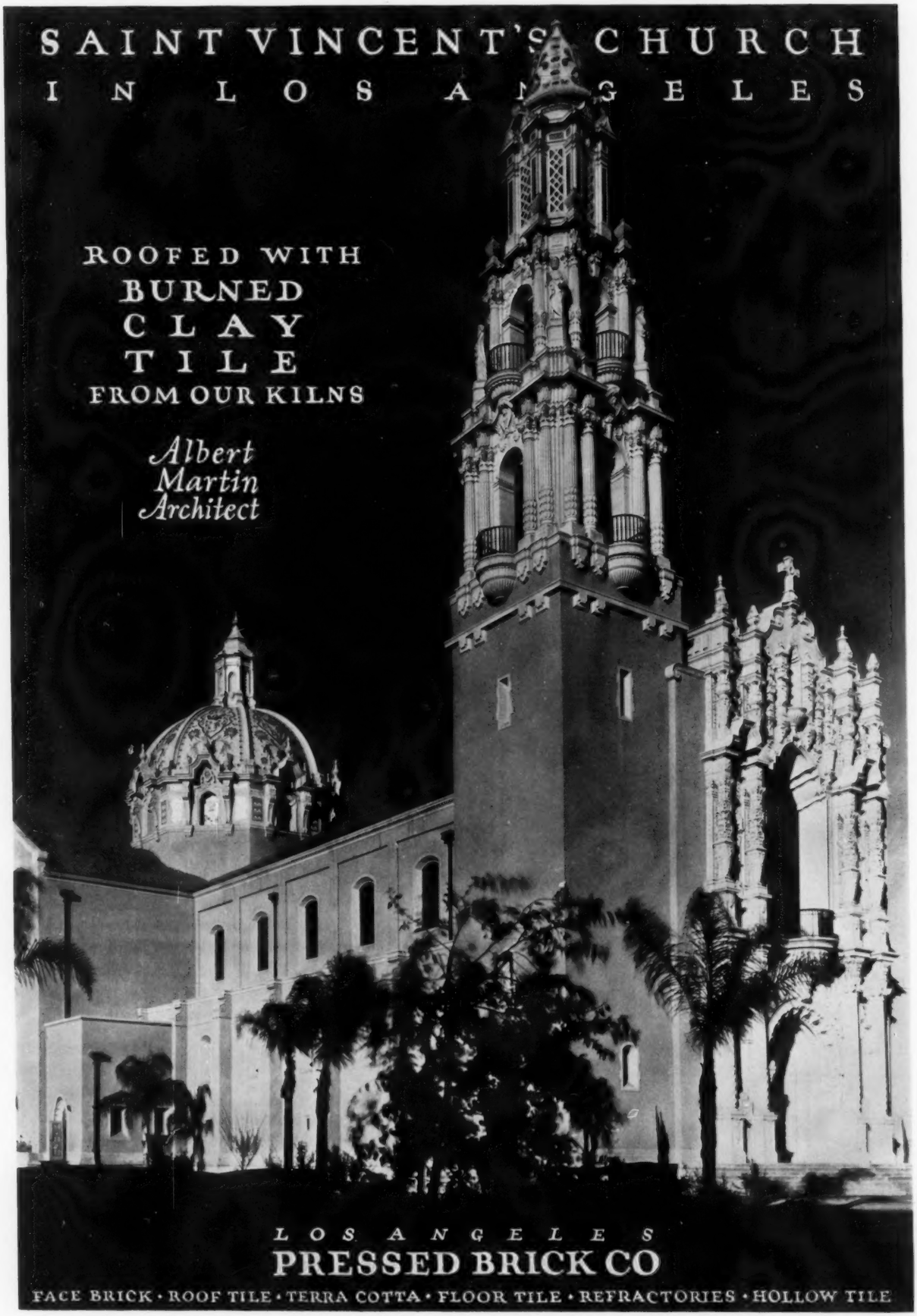
HIGH SCHOOL OF COMMERCE, SAN FRANCISCO. JOHN REID, JR., ARCHITECT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HIGH SCHOOL OF COMMERCE, SAN FRANCISCO. JOHN REID, JR., ARCHITECT

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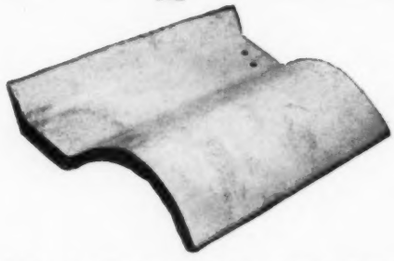

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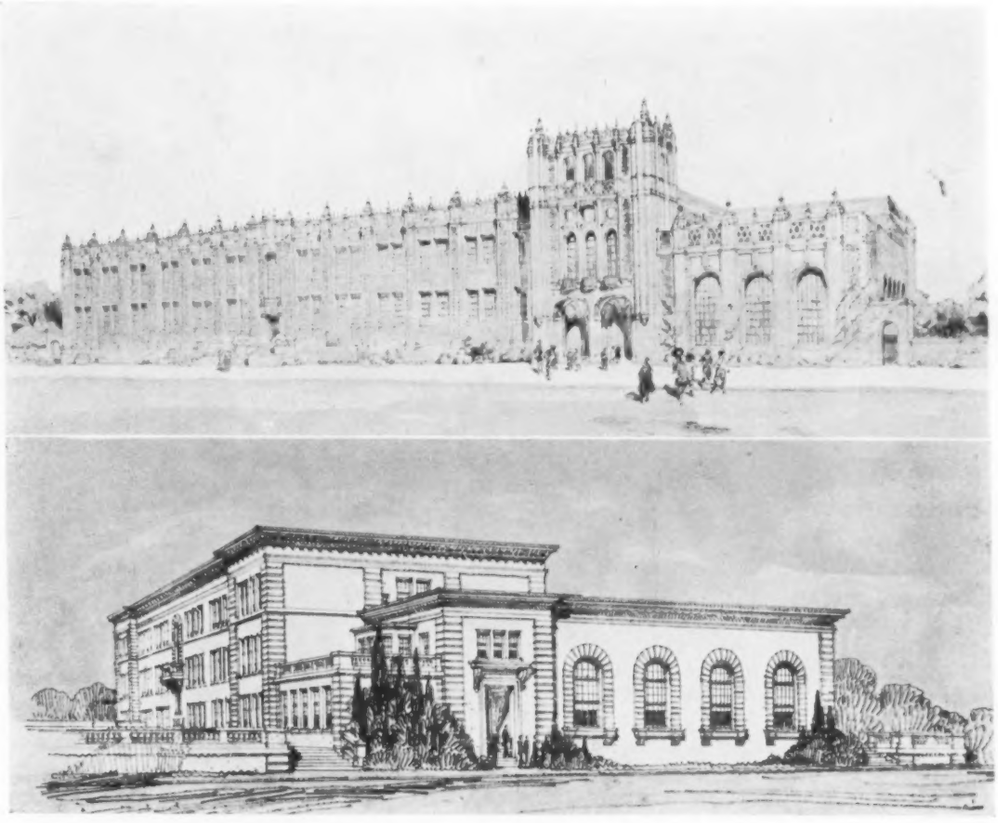
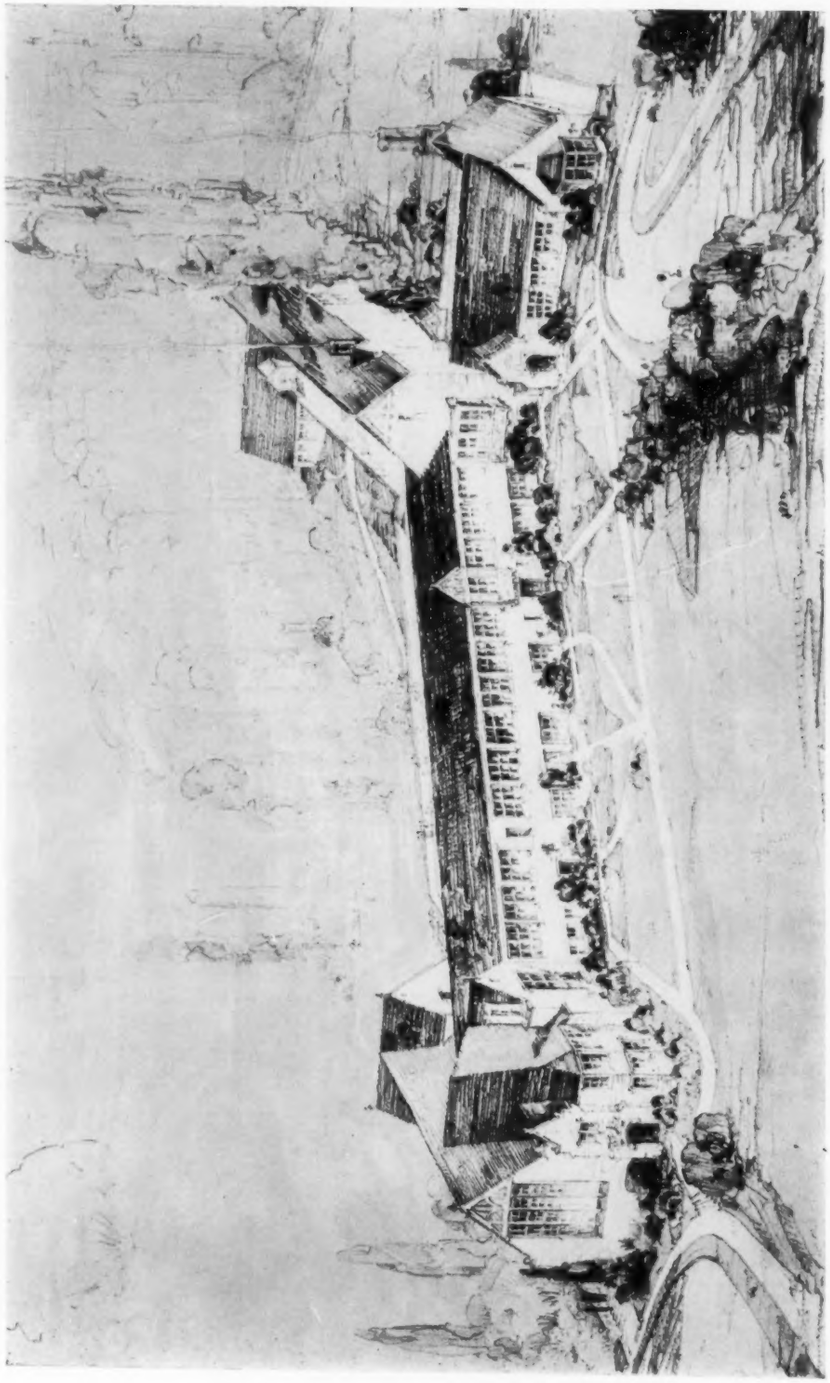
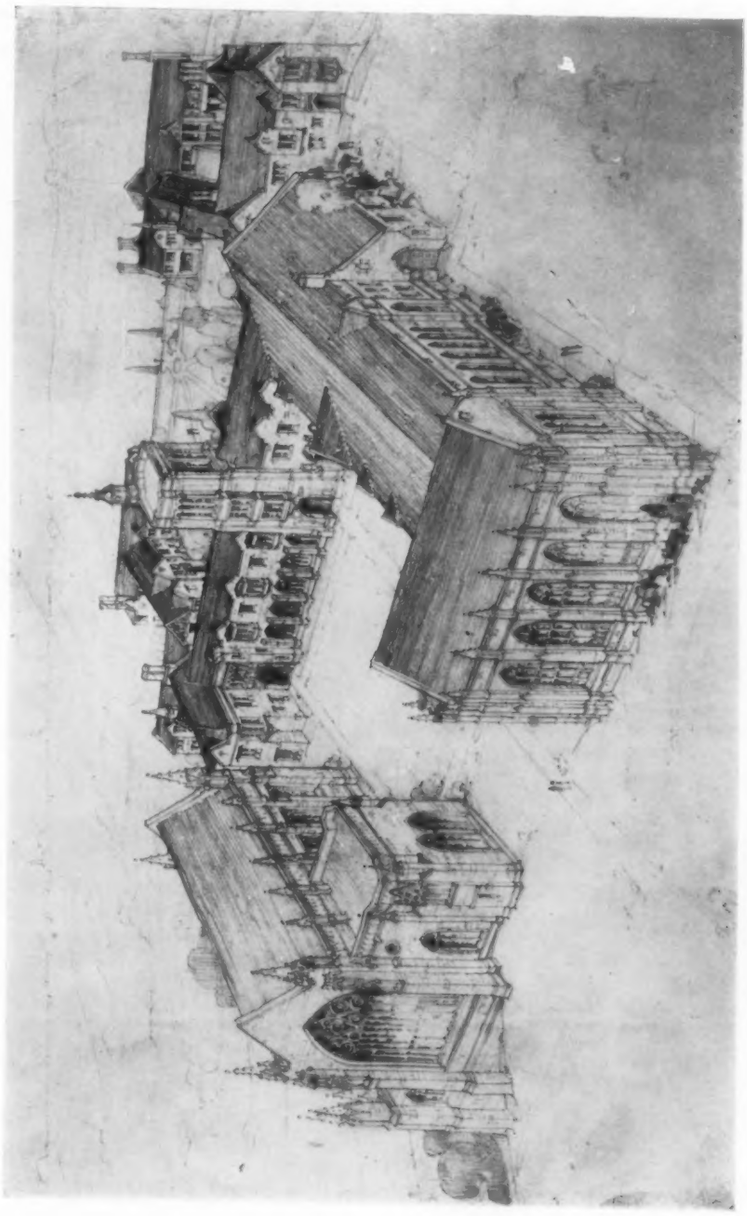


ABOVE—ALAMO SCHOOL, SAN FRANCISCO. J. R. MILLER AND T. L. PFLUEGER, ARCHITECTS; BELOW—SKETCH FOR LE CONTE SCHOOL, SAN FRANCISCO. JOHN GALEN HOWARD AND ASSOCIATES, ARCHITECTS



HILLSIDE SCHOOL, BERKELEY, CALIFORNIA. W. H. RATCLIFF, ARCHITECT



PACIFIC SCHOOL OF RELIGION, BERKELEY, CALIFORNIA. W. H. RATCLIFF, ARCHITECT

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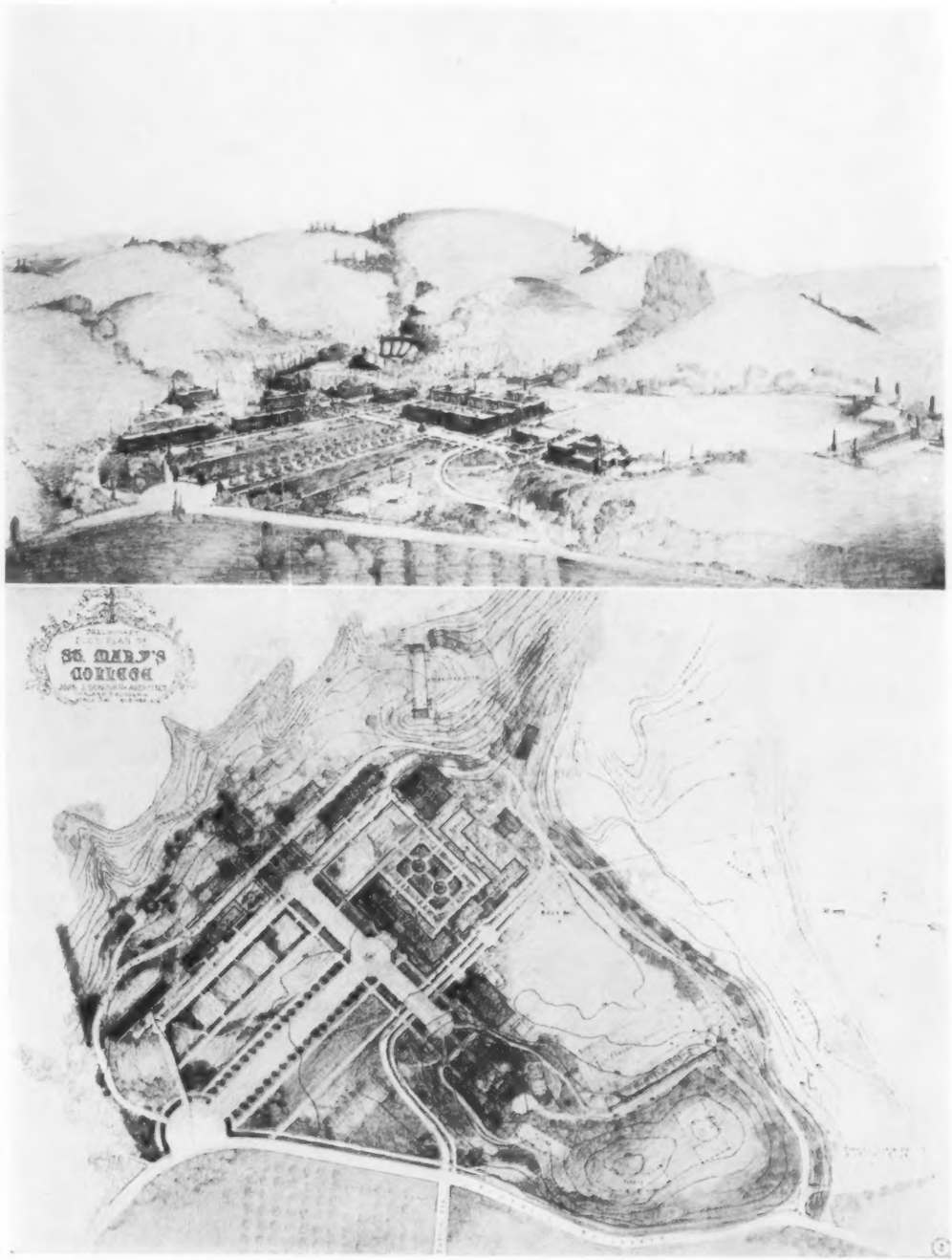

ABOVE—ST. MARY'S COLLEGE; BELOW—PLAN, ST. MARY'S COLLEGE, OAKLAND, CALIFORNIA.
JOHN J. DONOVAN, ARCHITECT

At the left—the new Medico-Dental Building at Eighth and Francisco Streets, Los Angeles; Walker and Eisen, Architects, and William Simpson Construction Co., Contractors. At the right—the new Textile Center Building at Eighth and Maple, Los Angeles; Douglas Lee, Architect, Andrew Seabloom, Contractor. Both of these beautiful buildings used special selections of Pacific Clay Face Brick.

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·EDITORIAL·

A Uniform Building Code

PROGRESS toward a uniform building code for the Pacific Coast is definite and encouraging. Such a code has been under preparation for some time by the central section of the Building Inspectors' Conference, and has been amended in accordance with suggestions from the South. After consideration by Northern officials, it will be put into final shape at a general conference, then submitted for approval to the various States and cities.

At present no two codes are alike. Moreover, it is next to impossible to keep up with the changes that are being made, here, there, everywhere. It does not take the genius of a Hoover to realize the gain in time, money and effort which standardization will bring about. Certainly architects will hail a uniform code with relief, and, to hardly a less extent, the producers of building materials.

* * *

The Architect's Responsibility

LAYMEN generally, and architects perhaps too frequently, fail to realize the responsibility which a professional man owes to the public. All architects of standing realize their obligation to their clients, and to the building industry as judges and arbitrators; but there is a larger obligation which is just as binding upon every architect. In a recent address to the Royal Institute, Dr. Raymond Unwin, F. R. I. B. A., brought out one phase of this responsibility so clearly that American architects would do well to consider these words of our English brother:

"If there is even a measure of truth in my view that this approach to architecture from the dwelling is best for the architect, and that the interest and appreciation of the people can best be stirred in their home whence it will spread in widening areas until it embraces the whole town, then I suggest that in our architectural training greater emphasis might be laid on this work. Let every student study the life of the home and learn to plan and design the small house thoroughly; let him follow this with some study of the combination of small houses into buildings composed of two, three, four or more dwellings, and the further combining of these larger units both in plan and elevation into more extensive groups, developing by the arrangement architectural relations and unity, in harmony with the contours or other features of the ground. This affords a truly fascinating field of design which few have yet explored, and fewer mastered. From this he will proceed to the development of sites and their relation to the town plan; when in due course he comes to exercises in monumental design he will at least have some idea of their place in the city, and the background against which they should stand. Incidentally, as our schools must turn out many architects whose opportunities for monumental work will be long in coming, and some whose gifts do not qualify them for such work, we shall at least have trained numbers of men better qualified to occupy that almost limitless field of house building and city planning which offers ample scope for men of very varying talents.

"Finally, we must not forget that, be we artists or be we practical men, we are citizens of our town or village; and to the extent that we are specially qualified to judge in such matters, are the more responsible as trustees for posterity that our city is handed down to them with its treasures intact and its beauty preserved or restored. Therefore let us get together in ways appropriate to our local circumstances. Our president made an admirable suggestion in his address, which will suit many places. In one town I know excellent work is being done on another line; the resident architects form a panel under the leadership of one of their number who acts as consultant to them and to the town council, coordinating their work and advising the authorities. He apportions the building among them, himself doing no building, but cooperating with the authority and their engineer in the town or site planning.

"From the high average of work resulting, I judge the arrangement to have no small educational value for the architects, as it certainly confers much benefit on the city. There are many ways in which the influence of the architect may extend. The first and the one most under our control is a thorough knowledge of the work and what is required. That is not all; but it is our part, and I say to the younger architects and the students, if you will so qualify that you can do this work sufficiently well, there is today a better chance than has existed for many a year, that the opportunity to work towards the improvement of the homes and the beautifying of the city will come to those who are ready for it. For it can hardly be doubted that we are entering a period of planning and coordination of work in many spheres, a period when I believe the architect and the designer will have an opportunity to strike out from the eddies into the main stream of life and play a more important and a more worthy part than they have often played in the recent past."*

*Journal of the R. I. B. A.

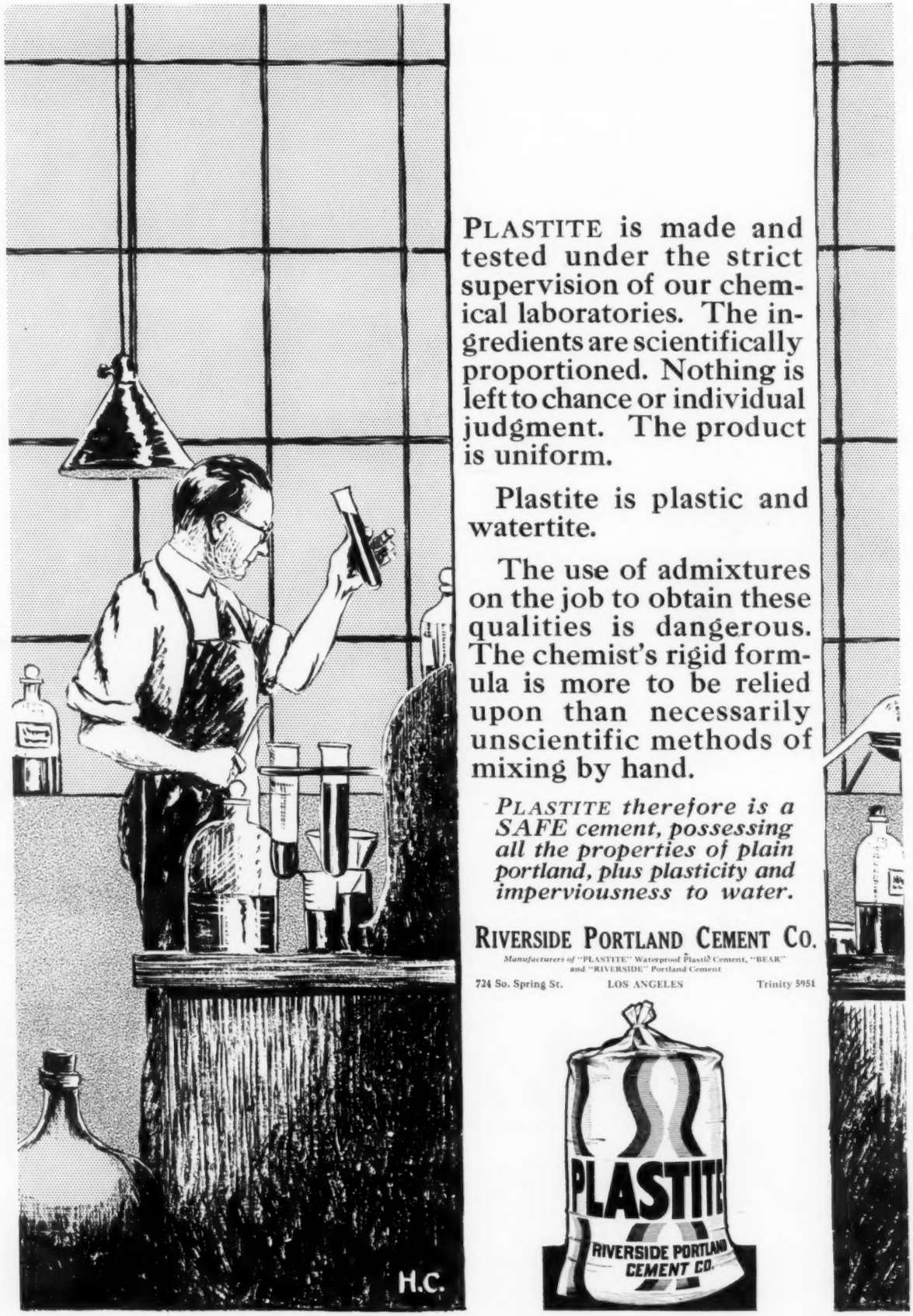
* * *

Adequate Inspection

FOR some time, efforts have been made by architects' and engineers' associations to secure an increase in the number—and ability—of building inspectors in our growing cities. Whatever the cause, whether it be "politics" or a sincere desire for economy in public administration, there has been little or no response to these efforts.

Two recent calamities are the direct result of this short-sighted policy. In San Francisco, a building wall fell over and in Pasadena, a temporary grandstand collapsed, bringing in each case, death and suffering to human beings.

Adequate inspection could have prevented these disasters. Is it possible that the lesson will go unheeded?



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SAN FRANCISCO CHAPTER AMERICAN INSTITUTE OF ARCHITECTS

MONTHLY BULLETIN

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WILL G. CORLETT, two years
GEORGE W. KELHAM, one year
ARTHUR BROWN, one year

NEXT MEETING

The next meeting of the San Francisco Chapter, The American Institute of Architects, will be held on Tuesday, February 16, 1926, at 6:30 p. m., at the new quarters of the San Francisco Architectural Club, 523 Pine street. Dinner will be served at 75 cents per plate.

The regular meeting of The American Institute of Architects San Francisco Chapter was held on Tuesday evening, January 19, 1926, in the rooms of the San Francisco Architectural Club, 77 O'Farrell street. The meeting was called to order at 7:45 p. m., President John Reid, Jr., in the chair.

The following members were present: Stanton D. Willard, Earle B. Bertz, Sylvain Schnaittacher, Albert Schroepfer, E. H. Hildebrand, Frederick H. Reimers, Morris M. Bruce, William Mooser, John Reid, Jr., John Galen Howard, Harris Allen, Henry T. Howard, P. J. Herold, Frederick H. Meyer, Chas. F. Maury, Albert J. Evers.

MINUTES

The minutes of the previous meeting were accepted as published.

UNFINISHED BUSINESS

The Secretary reported that the financial report of the visit of Institute Directors could not be completed until all the bills were received.

REPORTS OF STANDING COMMITTEES

Chairman Frederick H. Meyer reported for the Committee on Legislation and Building Laws chiefly regarding the recommendations to the Board of Public Works of San Francisco regarding the changes in organization of the Building Department. The Committee cooperated in this work with representatives from the American Society of Civil Engineers, the American Association of Engineers, The Builders' Exchange and the Industrial Association of San Francisco.

Moved, seconded and carried that the committee be tendered a vote of thanks and that the report be received and placed on file.

Chairman Harris Allen of the Committee on Public Information and Entertainment reported that he had submitted articles for the Builders' Exchange Journal.

GENERAL BUSINESS

Regional Director Schnaittacher reported on the question of Institute policies regarding the Small House Service Bureau, the Association of Architects and the Institute Journal. It was tentatively decided to obtain Chapter opinion by means of a questionnaire.

Mr. Harris Allen read a digest of the Santa Barbara Community Arts Association Report on the Small House Problem.

Moved, seconded and carried that the digest be laid on the table until the next meeting.

The renewal of membership in the National Fire Protection Association was brought up for discussion. It was recommended by the Executive Committee that membership be dropped.

The question of quarters with the San Francisco Architectural Club was brought up, cost to be $25 per month with privileges of holding meetings and using rooms.

Moved, seconded and carried that the Chapter join with the S. F. A. C.

Request of the Regional Plan Association for endorsement was brought before the meeting.

Moved, seconded and carried that the Secretary draw up and send a letter of endorsement to the Regional Plan Association.

There was some discussion of the preservation of the Exposition Fine Arts Palace. Mr. Frederick Meyer explained methods proposed and the expense of this preservation.

After some discussion, it was moved, seconded and carried that a committee be appointed to ascertain conditions of the Civic Center Plan and report to the Chapter their findings.

Question regarding the signature of plans by architects or engineers when submitting plans for permit was brought up. No action was taken. Discussion to be carried on at the next meeting.

Mr. Hildebrand read a resolution on the death of Mr. August Headman on August 9. It was moved, seconded and carried that the resolution be spread upon the minutes.

AUGUST G. HEADMAN, born April 13, 1883; elected to the San Francisco Chapter A. I. A. November 18, 1909; admitted to the Institute May, 1916; died October 28, 1925.

In the passing of Mr. August G. Headman at the age of 42 on October 28, 1925, the San Francisco Chapter of The American Institute of Architects and the profession of Architecture has lost a man of singular capacity in his chosen profession.

He was taken from his work in his prime and died when manhood's morning almost touched noon and while the shadows still were falling far towards the west.

As a young man, Mr. Headman was full of ambition and enthusiasm and this youthful enthusiasm never left him. After receiving his education in the San Francisco Public Schools, he entered the profession at the age of 16 as a student draftsman through the offices of Salfield and Kohlberg and Havens and Toepke, in the evenings attending the Mechanics Institute Art Classes, the Hopkins Art Institute and the Humboldt Evening Technical School. Recognizing the need for a greater architectural training among the student draftsmen, he organized the San Francisco

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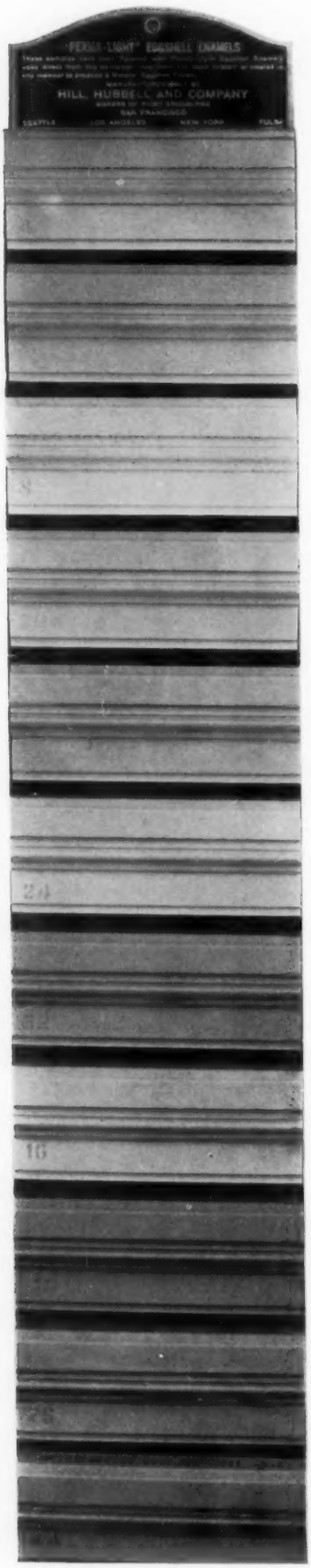

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A BRIEF HISTORY OF BRICK

[BY JOHN LEWIS BROCK]

BEFORE Babylon became the holy city of Western Asia—before the building of the pyramids—before the Israelites knew bondage in Egypt . . . before all these things, there was brick! To trace back to the origin of brickmaking is impossible. The quest leads one beyond points where history becomes only semi-authentic; then purely conjecture. However, it is a well-authenticated fact that burnt bricks were made by the Babylonians more than 6000 years ago. The site of the ancient city of Babylon is still marked by huge mounds of brick—the ruins of its great walls, towers and palaces. This would indicate that the city was predominantly of brick construction, for these great quantities of still-serviceable brick remain after their number has been depleted by centuries by the custom of utilizing the brick of early times in the construction of modern towns in the surrounding country.

The Chinese claim extreme antiquity for their clay industries. But it is highly probable that the knowledge of brickmaking traveled eastward from Babylonia across the whole of Asia. It is generally believed that the art of making glazed brick, so highly developed afterwards by the Chinese, found its way across Asia from the west—through Persia and northern India to China. The Great Wall of China was constructed partly of brick, both burnt and unburnt, but it was built at a comparatively late period (210 B. C.). There is nothing to show that the Chinese had any knowledge of burnt brick at the time the art was flourishing in Babylon.

Brickmaking formed the chief occupation of the Israelites during their bondage in Egypt, but in this case the bricks were probably sundried only, and not burnt. These bricks were made of a mixture of clay and chopped straw or reed, worked into a stiff paste with the addition of water. The clay was the river mud from the banks of the Nile, and as this had not sufficient cohesion in itself, the chopped straw or reed was added as a binding material. The addition of such substances increases the plasticity of wet clay, especially if the mixture is allowed to stand for some days before being used. These sundried bricks, or "adobes," are still made, as of old, on the banks of the Nile. The method employed is as follows: A shallow pit or bed is prepared, into which are thrown the mud, chopped straw and water in suitable proportion. The whole mass is then trampled upon until it is thoroughly mixed and of the proper consistency. It is then shaped, by hand or in molds, and the bricks exposed to the heat of the sun.

Historians make mention of three kinds of bricks being made by the Greeks, but there are no indications of the widespread use of any of the three types. The walls of Athens on the side toward Mount Hymettus were the most important brick structures of ancient Greece.

The Romans became masters of the brickmaker's art, having probably acquired the greater part of their knowledge in the East during their occupation of Egypt and Greece. They revived and extended the manufacture of bricks at about the beginning of the Christian era; exercising great care in the selection and preparation of their clays, and introducing the method of burning brick in kilns. They carried these methods throughout western Europe, and there is abundant evidence that they manufactured kiln-burned bricks extensively in Germany and in Britain.

The art of brickmaking appears to have been lost in Britain with the withdrawal of the Romans. It is doubtful if any burnt bricks were again manufactured there until the thirteenth century. Such bricks as were used during this protracted interim were taken from the remains of Roman buildings—as at Colchester and St. Albans Abbey. One of the earliest existing brick buildings erected after the revival of brickmaking in England is Little Wenham Hall, in Suffolk, built about A. D. 1210. It was not until the fifteenth century that brick again came into general use.

The first brick building in the United States was erected on Manhattan Island in the year of 1633 by a governor of the Dutch West India Company. The bricks used in this building were made in Holland, where the industry had long before reached a stage of great excellence. For many years bricks were imported to America from Holland and from England. Bricks were first manufactured in America in about 1650 at New Haven, Connecticut. The industry spread slowly through the New England States—for many years the home-made article being inferior to bricks imported from Europe.

The history of the use of bricks in America is an interesting one, and, at the same time, a history replete with sorrow. The reason for this is that in almost every instance where brick predominates in an American city's choice of building material, that city has suffered a great conflagration before awakening to the necessity for safe, durable construction. Philadelphia is an exception to this rule. Still, even in the case of that city, the precautionary attitude which dictated the almost universal use of brick may be traced to a great fire. Very fresh in the memory of Philadelphia's early settlers was the recollection of London's fire catastrophe of 1664. In the case of Chicago, an outstanding brick city, her lesson was learned at first hand. The Chicago fire of 1876 assumed the proportions of a holocaust. Then came drastic and effective fire menace restrictions; and Chicago has suffered no considerable fire losses since. This story of great conflagrations being followed by safe and sane building requirements has been told many, many times in the history of this country.

The burning or firing of bricks is the most important factor in their production. Their strength, metallic hardness and durability depend very largely upon the character and degree of firing to which they have been subjected. The action of the heat brings about chemical decompositions and recombinations which entirely alter the physical character of the dry clay. Years of continued experimentation have brought about process refinements which leave little, if any, room for improvement. To-day, finishing temperature ranges from 900 degrees, Centigrade, to 1250 degrees, Centigrade. Such highly intense firing produces bricks which are absolutely impervious to disintegration brought about by the passage of time in almost every other substance known to science. All elements susceptible to natural deterioration, which, in the main, is always atmospheric, have been consumed by fire in the making of the product. Brick is far more durable than granite or any other stone used in building construction.

In California brick is fast coming into popular favor for general residential purposes. There are two special reasons for this. First, architects have found that brick lends much grace and beauty to the Mediterranean types of homes, which, as we all know, include the Italian and Spanish. And again, because of the great popularity which the use of extreme kiln-run brick has achieved.

Extreme kiln-run brick is the term that for years has been applied to bricks that take on the deeper shades in the process of burning. Such bricks range in colors from

[Concluded on page 45]

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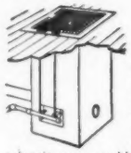

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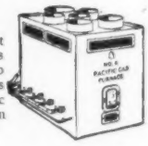

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LONDON—DECEMBER—AN IMPRESSION

[Concluded from page 5]

triangle of land, three or four graves with moss-covered headstones, and so on, and on—it is all like a journey of exploration. If these old buildings could but speak, what tales they could tell. The very names of the streets have an appeal: Paternoster Row, Ave Mary Lane, Creed Lane, Deans Court, all suggested an ecclesiastical character. While Poultry, Fish street and Bread street indicate vicinities taken over by merchants in the respective lines. The two districts in which the Jews were permitted to reside still retain the names of the Old Jewry and Jewin street and thus it is with nearly every street name in London. If one will but take the time to trace it through, there will be found an historic reason for the name.

One often hears that London is lacking in color, that she is dingy and dull, but today, and it is December, she is full of color. True, it is not the color that one finds under conditions of bright sunlight with the resulting brilliant highlights and deep shadows, for here everything is softened by the low-hanging mist that imparts an opalescent tone over all. While the general hue is gray, it is a wonderful combination of grays changing constantly and relieved by dashes of bright color. As twilight falls and night comes on you may chance to glance down some side street and see the flare of torches lighting up the barrows of hucksters, piled high with green and red and amber of their wares, and all set off against the deep velvety black; or on the more traveled ways the shop lights casting their golden reflections from the wet pavements, and through it all that wonderful haze that seems to blend the scene into one harmonious scheme.

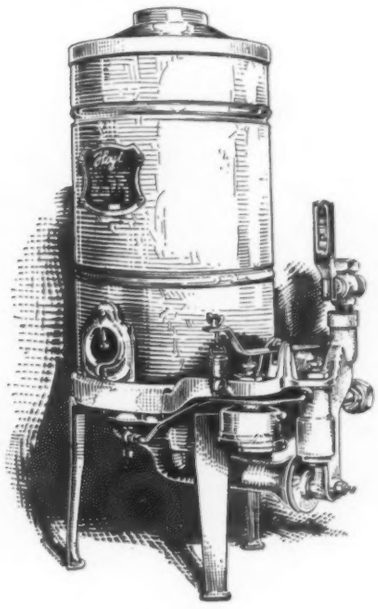
And this is particularly true of the city at night, whether you may be in rushing, surging Piccadilly with its lighted shop fronts and brilliant red busses giving a gay note to the scene or whether you may be in some little by-street with the dim lights of some small shop reaching out fingers of color through the mist; or you stand upon the Embankment and look out upon the Thames with the arches of a bridge showing black against a luminous sky and reflected in the stream barges in mid-channel appearing dark upon the water, and a myriad of lights like jewels dancing upon the surface of the river. At such a time one longs for the gift to transpose the scene into color in a manner accomplished only by one—Whistler.

* * *

For the first time in the history of the plate glass industry in the United States, a total of over 10 million square feet of polished plate glass has been made in one month. This new high record was made during August.

* * *

"Plastite Progress," a miniature magazine of extreme interest and helpfulness, is being issued each month by the Riverside Portland Cement Co. of Los Angeles.



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V.

WHAT A BUILDING INSPECTOR LEARNED

[BY OSCAR G. KNECHT]
City Building Inspector for San Diego, California

It is of interest to know that Mr. Oscar G. Knecht, Structural Engineer and Chief Building Inspector for the City of San Diego, Calif., was sent to Santa Barbara to make official inspection and report on the behavior of the different buildings and materials affected by the earthquake; Mr. Knecht was especially instructed to select, if possible, the most suitable construction and the proper materials to be used in designing and erecting earthquake-resisting structures.

On the suggestion of those representing the architects, contractors and materialmen of San Diego, Mr. Knecht worked and investigated entirely independently from those representing manufacturers of different materials and special methods of construction.

William H. Wheeler, Pres. Cal. State Board of Architects; Charles Quayle, of Quayle Bros., Architects, San Diego; George Klicka, of Klicka Lumber & Building Material Co.; Walter Trepte, of Trepte & Son, General Contractors; Louis Schirm, of Schirm Commercial Co.—The Committee, San Diego, California

WITHIN forty-eight hours after the quake I arrived in Santa Barbara, wearing a special deputy sheriff's badge which gave me permission to visit the different buildings and make close inspection of the damage without being challenged by those on guard duty. We hear much regarding the property loss and the collapse and destruction of many buildings. Judging from the exaggerated reports and rumors one would be led to believe that half of the city of Santa Barbara lies in ruins; nothing could be farther from the truth. Relative to the entire city as a whole, only a small area was seriously affected, principally the retail business and commercial districts and the lower levels near the ocean. Structures on alluvial soil, sand and sedimentary fill suffered far worse than those built on solid, firm clay, hardpan or rock.

I estimate the total loss relative to buildings will subsequently be found out to be somewhere near $12,000,000; however, fully 75 per cent of this loss could have been prevented in the first place had good judgment, skilled labor, appropriate materials and sane, conservative, structural engineering practice been resorted to when building the Santa Barbara structures.

All types of building construction experienced at least partial failure. Three important reinforced concrete buildings were very severely damaged, one large reinforced concrete building being practically a complete failure. The remaining portion still standing is so severely damaged that demolition will no doubt be necessary. A number of masonry buildings, such as brick, stone, hollow tile, hollow concrete block, brick veneered and adobe structures, wholly or partially collapsed, and even several large open wood frame buildings and sheds were shaken down. We must not forget, however, that most of the above failures were due to poor construction and poor materials, and no doubt a lack of proper inspection or supervision when first built.

I made very careful examination of the mortar used; and numerous samples were brought along for testing purposes. We find most of the mortar to be very ordinary lime mortar with an excess of sand in most cases. I must admit that some of the mortar used was the poorest mortar ever witnessed by me in all of my experience. It is a mistake to use straight lime mortar of any kind on important masonry work; all lime mortar should have mixed with it a sufficient amount of Portland cement to cause the mortar to adhere to the masonry units, thereby giving elasticity to the wall, and causing same to act as a single unit. Mortar should not merely serve as an equalizing bed for the different masonry units; the units must be bound together.

The above is directly opposite to the propaganda of some ready-mixed mortar plants who, in my opinion, are advocating ready-mixed lime mortar without the addition of cement, for no other reason than that it is usually impractical in their business to add the cement. To use ready or factory mixed lime mortar is a good idea and insures the best mixed-lime mortar possible, but the cement must be added on the job in every case, just before using.

Many of the masonry walls in Santa Barbara were not anchored or tied in any manner to the joists, rafters or wood framework. The masonry piers supporting lintels over large openings were entirely too slender for proper strength or stability, and we found numerous lintels spanning wide openings, both reinforced concrete and steel, with insufficient bearing area at ends, and in some cases the bearing plates under large steel lintels were entirely omitted. In a few other instances the spans were excessive, causing undue deflection in the lintels.

Lack of masonry bonding was another principal factor assisting the many failures. In one particular building I counted 36 courses of face brick which had fallen away from the backing. There was no bonding, blind bonding or ties whatsoever between the face brick and the backing; naturally such facing must fall away in any light shake. Much veneering fell away from the wooden frame or backing for the same reason. The many fire or parapet wall failures were mostly due to being too thin relative to height, no ties or braces, no stiffening piers or pilasters, or poor mortar.

Ordinary plain light-weight hollow tile walls, and light-weight hollow concrete block walls, with no solid piers, bonding or tie beams, were, in general, a complete failure. It is a dangerous practice to use such light-weight, thin-web hollow building units in any bearing wall or tall unsupported nonbearing wall. We are not referring to well-designed load-bearing hollow units, designed especially for *load-bearing walls*, by reliable hollow tile and concrete block manufacturers.

Poor concrete and insufficient reinforcing were the *principal* causes of the several reinforced concrete failures; poor engineering design in a few cases may also be added as one of the causes. In some cases the 6 and 8 inch reinforced concrete walls were too long and too high relative to thickness, and consequently must have fallen in any ordinary quake on account of the lack of stability, regardless how good the concrete mixture might have been, nor would a network of reinforcing in this case add much more to the structural stability unless the reinforcing extended well into broad heavy footings below.

[To be concluded in the March issue]

CRANE BEAUTY IN THE OPEN; CRANE QUALITY IN ALL HIDDEN FITTINGS

Adroit use of space adds interest to this unusual bathroom—adapting it to small apartments, bungalows and rebuilt houses where room for an extra bath may be very limited.

Only six feet by six, the plan provides for a full-size *Tarnia* tub of cream-white enamel, with a storage closet above, an *Idalia* lavatory of twice-fired vitreous china and a quiet *Saneto*. Facing the lavatory, a shallow dressing table, reflected in the cabinet mirror, is recessed into the wall below the window. Wainscot, floor and upper border are in faience tiles. The walls are covered with cretonne or paper, sized with shellac.

Architects are invited to visit the Crane Exhibit Rooms nearest them, to inspect the complete line of the newest, compact Crane fixtures, and heating materials, valves, and fittings.

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CRANE-BENNETT, LTD., LONDON
CIE CRANE: PARIS, BRUSSELS

A BRIEF HISTORY OF BRICK

[Concluded from page 39]

the dark blues through the browns to the reds and salmons. Their use gives an extremely pleasing and distinctive color effect. Many of the latest additions to California's finest residential districts owe much of their charm to the use of extreme kiln-run brick.

The largest brickmaking plant in the world is in Southern California. It is located just outside the limits of Los Angeles, in the industrial city of Simons. In this plant, which is a wonder of modern machinery and efficiency methods, are produced common bricks in excess of three-quarters of a million a day.

The clays of California are of the very finest to be found anywhere. This, together with the high percentage of clear days to facilitate the preliminary sun-drying, makes the State a natural leader of the brickmaking industry.

* * *

The title of an informative and helpful booklet for architects just published by the Stevens Sound-Proofing Co., 14 E. Jackson Boulevard, Chicago, Ill., is "Silence is Golden." It is a comprehensive treatise on sound proofing in modern building construction as accomplished under the Stevens System of Sound and Vibration Control and may be had by those in the profession upon application to the company's offices at Chicago.

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High Grade Sheet Metal and Kalamein Work
FIRE PROTECTION PRODUCTS CO.
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The DUNHAM REG. TRADE MARK HEATING SERVICE

Pencil Pointers *on the* **Dunham Trap**

***The* Dunham Floating Valve**

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Seventy branch and local sales offices in the United States and Canada bring Dunham Heating Service as close to your office as your telephone. Consult your telephone directory for the address of our representative in your city.

C. A. DUNHAM CO.
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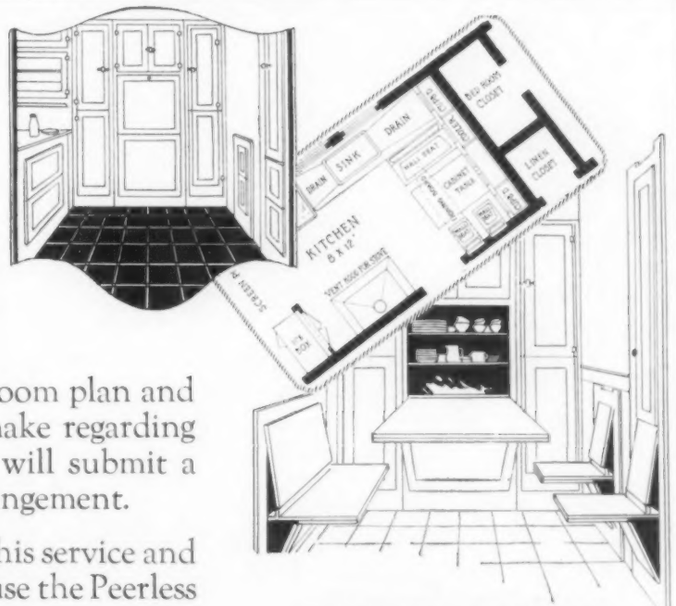
Announcing—

New Kitchen Plans Service



We now have a department to prepare complete kitchen plans for homes or apartments.

Just send us a sketch of the room plan and any suggestions you wish to make regarding special requirements and we will submit a carefully planned kitchen arrangement.

There is no cost whatever for this service and no obligation on your part to use the Peerless fixtures specified, although their convenience and very high quality will commend them to you.

Use this service!

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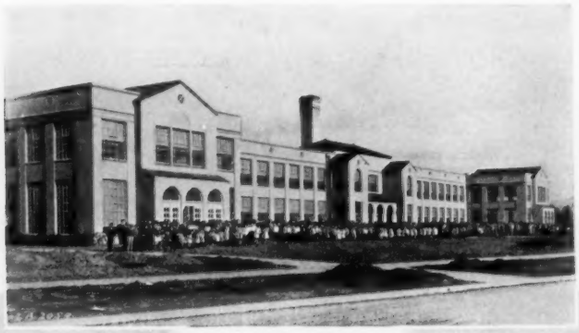

Public school, Longview, Wash., built of concrete.

Concrete pavement on Main St., Longview, Wash.

Longview Memorial Hospital can not burn because it is built of concrete

Building an Entire City *of* CONCRETE

Less than three years ago Longview, Washington, existed only as one man's dream. Today it is a thriving city of seven thousand people!

Seldom has a municipality been as carefully planned and built.

Longview is built of concrete, the highest type of fire-resistive material. *Longview is a city that cannot burn.*

Not only are streets, walks, sewers, waterworks and garbage-disposal plant of this permanent material, but all buildings as well.

These include the beautiful Hotel Monticello, the Longview National Bank, a $125,000 Community Church, a $150,000 Public Library, the manufacturing plants of the Long-Bell Lumber Company, and block after block of fine, modern homes.

In every section of the country architects are creating permanent beauty with marked economy through the medium of concrete.

Write the nearest District Office listed below for any help you want in the use of concrete.

PORTLAND CEMENT ASSOCIATION

A National Organization to Improve and Extend the Uses of Concrete

Atlanta	Dallas	Kansas City	New York	Salt Lake City
Birmingham	Denver	Los Angeles	Oklahoma City	San Francisco
Boston	Des Moines	Milwaukee	Parkersburg	Seattle
Charlotte, N. C.	Detroit	Minneapolis	Philadelphia	St. Louis
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Columbus	Jacksonville	New Orleans	Portland, Ore.	Washington, D. C.

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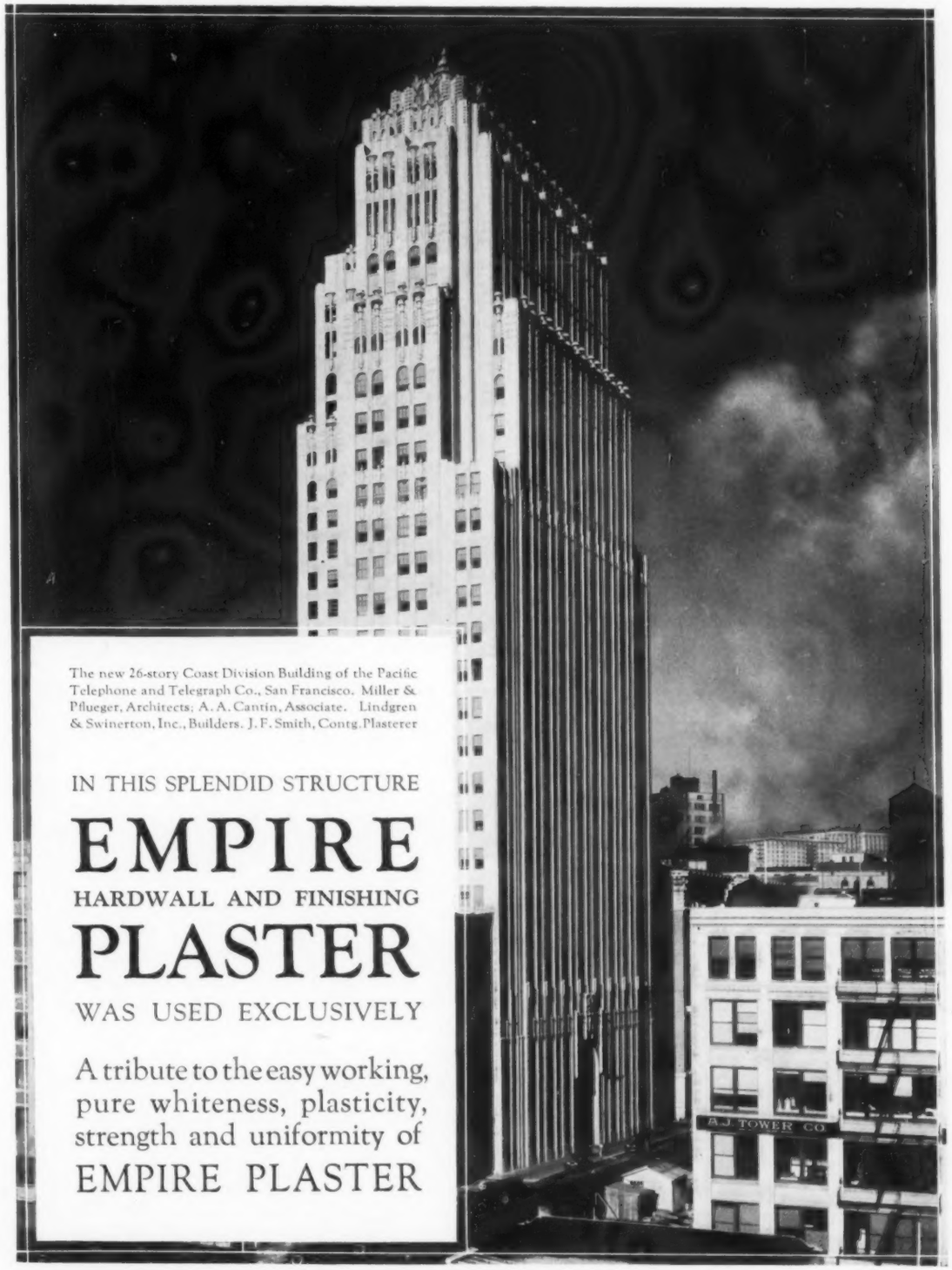

The new 26-story Coast Division Building of the Pacific Telephone and Telegraph Co., San Francisco. Miller & Pflueger, Architects; A. A. Cantin, Associate. Lindgren & Swinerton, Inc., Builders. J. F. Smith, Contg. Plasterer

IN THIS SPLENDID STRUCTURE

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WAS USED EXCLUSIVELY

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Place in your files a copy of our Architects' Specification Manual, with samples and proof.

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Our Architects' Service Department Performs rather than Promises

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Originators of Successful Systems of Painting

The Los Angeles Evening Express
Sponsors the Building of This
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PAUL C. WHITICE, PLANS AND SPECIFICATIONS

JAMES THOMAS, PLASTERING CONTRACTOR

BUTTRESS PLASTER LATH
Used Throughout For Walls and Ceilings

This beautiful home is now being built in Holly Vista, in the popular West Hollywood section of Los Angeles. The materials are the best and most dependable that the market affords, regardless of price. They are what you, yourself, would want used in the construction of your own home.

The fact that Buttress Plaster Lath was selected for the walls and ceilings speaks volumes in favor of this high quality material. It is not only a dependable, durable plastering base, but is sold at a price that makes it economical to use in small homes as well as in large residences, hotels, etc.

SOLD BY ALL BUILDING MATERIAL DEALERS

Write for Descriptive Circular and Free Sample of Buttress Plaster Lath.

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Los Angeles **California**

BUTTRESS B PLASTER LATH

1-126

MONTHLY BULLETIN, A. I. A.

[Concluded from page 37]

Architectural Club on September 28, 1901, and brought to the new organization an enthusiasm and inspiration which soon made itself felt in a higher standard of architectural draftsmanship and artistic design. This club ever since has been one of the leading architectural clubs in the United States. To the younger members of the club, Mr. Headman was ever counsellor and friend and gave to them freely of his time.

His perseverance, study and hard work made it possible for him to go east four years later and enter the University of Pennsylvania. He graduated from the Department of Architecture in 1907, after which he worked for Walker & Gilette in New York and then went to Paris and studied at the Ecole des Beaux Arts, after which he made a sketching trip through all of Western Europe, studying its architectural monuments.

Upon his return to San Francisco, he went into partnership with Perseo Righetti. In 1914 he withdrew and established himself in independent practice which was extremely varied in character, both commercial and public buildings and a grist of apartments and dwellings, all of which, however simple, showed a sincerity and a picturesque charm.

Mr. Headman was a facile draftsman of unusual skill and an architect of distinction who had the rare combination of an artistic temperament coupled with executive ability. His high ideals and fine character were an inspiration to all who knew him and his ability and integrity were a never-failing source of strength and assurance to those with whom he worked and those whom he served. Few architects have labored more conscientiously and intelligently for the upholding of the traditions of faithful service and devotion to the client and the community.

Our loss is irreparable, but it is not complete; his spirit lives on in the memory of his friends, his architectural monuments, and in the abiding joy of many years of sweet association.

In his death we, as a body and as individuals, have suffered a loss beyond expression. Our loss is second only to that of those to whom he occupied a still more intimate family relationship.

Resolved, That the members of the San Francisco Chapter of The American Institute of Architects, in chapter assembled, extend to his widow and the other members of his family their sincere sympathy, and be it further

Resolved, That these resolutions, together with the preamble expressing our love and appreciation, be spread upon the minutes of the San Francisco Chapter and a copy thereof be sent to his family.

ERNEST H. HILDEBRAND,
MORRIS M. BRUCE, *Committee.*

There being no further business, the meeting adjourned.

Respectfully submitted,
ALBERT J. EVERS, *Secretary.*

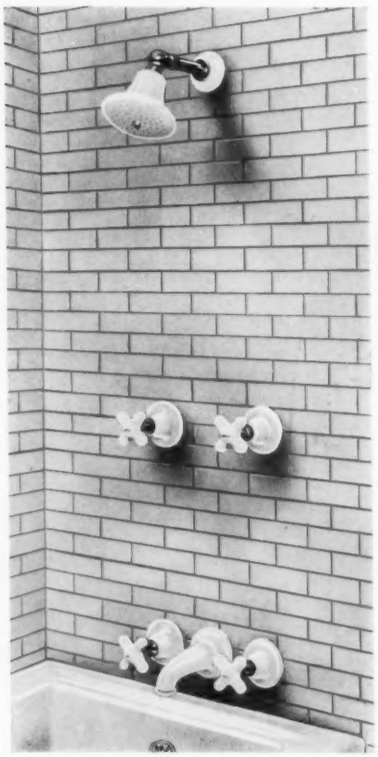
After adjournment, Professor A. C. Alvarez of the University of California presented a series of slides and an address upon the Santa Barbara earthquake.

* * *

The Oakley Paint Manufacturing Company of Los Angeles has recently published an excellent and informative specification book for the information of architects. The Oakley System of wall painting was used on the following schools: Wilton Elementary School, Belmont High School, John Burroughs Junior High School, Le Conte Junior High School, Belvedere Junior High School, Edgar H. Cline, Architect.

BEAR BRAND

Tub Filler and Shower

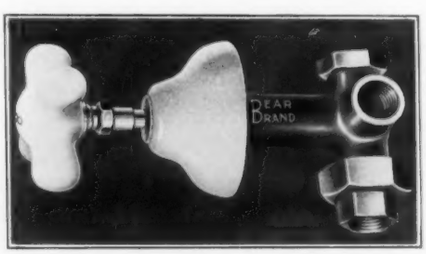


"The California"

Fig. 27

A completely assembled unit

Furnished as shown with piping in the wall. Has ground joint union connections. Includes White Bear Loose Face China Shower Head, Raised China Flange Stops and China Spout.



Detail of Fig. 42 By-Pass Shower Stop used in making the California fixture.

Standard Brass Casting Company

Manufacturers of

High Grade Plumbing Brass Goods

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California PINE

California White Pine (trade name)

California Sugar Pine

Distinctive and durable garages and garage doors

The garage is practically a necessity these days. Hence it is incumbent that this important adjunct to the home, conform in architecture, in construction, and outside finish with the house itself.

That is why the wood-qualities that recommend California Pine for the home, also recommend it for the garage. Chief among these qualities are—freedom from warping and shrinking resulting in permanently tight joints; soft, even texture making cutting and fitting easy, joinery accurate and architectural designs sharp of line and contour; remarkable affinity for paint; lightness of weight.

Garage doors of California Pine especially, have many advantages. Among these advantages are lightness of weight and consequently less strain on hinges, freedom from swelling in damp atmosphere, nail and screw-holding ability and resistance to hard usage.

Carpenters like California Pine because it's easy to cut and fit, and makes for good workmanship.

Cork-like texture holds nails tightly and prevents splitting even with nails driven close to edge or end.

Soft texture, easily worked, permits of clean-cut, sharp lines, delicate designs.

California Pine qualities recommend its use for many building purposes. Complete technical data on this fine building lumber is contained in a set of California Pine Information Sheets. These sheets are printed in standard size and are contained in a convenient folder for filing. If you have not received a set, please write us. They will be gladly sent you free.

California White and Sugar Pine Manufacturers Association

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24

The Allerton Club, Chicago, Illinois—Murgatroyd & Ogden, Architects

THE Allerton Club is worthy of the careful study of the designer who is interested in beautiful brickwork. The building fairly bristles with interesting details, which have been skillfully worked into an exceptionally pleasing composition. Space does not permit even a catalog of these striking details, but they are readily apparent to the trained eye.

One of the outstanding features of this building is the fact that the architects have depended almost entirely on face brick for their effects.

You will find many splendid examples of the modern use of face brick in "Architectural Detail in Brickwork," a portfolio of many halftone plates, showing various treatments of the brick wall surface, ready for filing. It will be sent postpaid to any architect making request on his office stationery.

"English Precedent for Modern Brickwork," a 100-page book, beautifully illustrated with halftones and measured drawings of Tudor and Georgian types and American adaptations, sent postpaid for two dollars

AMERICAN FACE BRICK ASSOCIATION

1767 Peoples Life Building · Chicago, Illinois

TECHNICAL BUILDING QUESTIONS ANSWERED

[BY PAUL W. PENLAND]
Research Engineer, Blue Diamond Company, Los Angeles

A RESEARCH DEPARTMENT FOR THE CONVENIENCE OF READERS OF THE PACIFIC COAST ARCHITECT. ALL INQUIRIES ARE WELCOME.

Q. Is it advisable to waterproof the concrete foundation of a residence?

A. Unless you have a basement it is not necessary to waterproof your foundation as it is taken for granted that your architect has graded your property so that all dampness drains from the house. All basement walls should be waterproofed.

Q. Can a contractor not draw plans and proceed with the work so as to save the fees of the architect?

A. The State law does not require an architect be employed, but the usual practice to obtain good results is to employ an architect. Some States have a law stating that an architect must be retained.

Q. How important is the strength of a brick itself in relation to the strength of the wall laid up?

A. Practically all tests indicate that, other conditions being equal, the compressive strength of brick masonry is roughly proportional to the strength of a single brick.

Q. Should sidewalks be protected after they are in place?

A. Cement walks should be covered over, as soon as completed, with canvas, tar-paper or boards, which should be kept a few inches above the surface of the sidewalk. This will protect the walk from the effects of dust, dirt, wind, hot sun and traffic. After the pavements have been finished for a day, they should be thoroughly sprinkled with water and kept wet for a week or more. A covering of sand one-half inch thick and kept thoroughly wet forms a good protection, but should not be applied before the surface has set.

Q. Can I obtain a fair millwork bid if my drawings are detailed at ¾ inch to the foot?

A. The suggested scale is satisfactory for the general elevations and plans of all casework, mantels, balustrades, entablatures, pediments, doors, wainscoting, paneling, stairs, rails, store fronts, etc.; however, these drawings should be supplemented with 1½-inch scale (3-inch would be better) sectional details, showing dimensions and method of construction. All cornices, beams, frieze and molds should be drawn to 3-inch scale or, better yet, full size.

Q. How is plaster of Paris manufactured and for what purpose is it used?

A. Plaster of Paris is obtained from raw gypsum rock by grinding to powder and gentle calcination. It is soluble in water, which renders it unfit for external use, but it is valuable for cornice molds and enrichments, and is also used in several plastic mixtures. The great value of plaster of Paris is that paste made from it rapidly sets and acquires full strength in a few hours. Its volume expands in setting, making it a good material for filling chinks and holes in repair work.

Q. Should the quality of soil be considered in a foundation for a building of moderate weight?

A. Yes; for example, for a building of moderate weight, erected in soft, clayey soils, the bearing power of the latter may often be considerably improved by spreading layers of sand, gravel or broken stone, and pounding it into the soil.

Q. What is a kalameined door?

A. The kalameined door is made by drawing a thin sheet of metal over a wood core. This door is used a great deal for wire shafts, passenger elevator doors, etc. The trim should also be kalameined so as to afford full fire protection. As these doors can be hung by the carpenter, they are erected on wood bucks or frames.

NEW SCHOOLS—NEW WINDOW-CONSCIOUSNESS

[Concluded from page 9]

nice adjustment of opening possible with the reversibles. On the other hand, horizontally pivoted windows can be grouped in batteries and equipped with unified control. This arrangement is well illustrated in the accompanying photograph of the interior of the library of the Leland Stanford, Jr., University, at Palo Alto.

All of the steel window types described are alike in fireproof qualities and in the amount of light they provide in excess of that obtained through wood windows. Due to the smaller size of the sections used, a steel window of given over-all width and height admits 20 per cent more light than a wood window of the same dimensions. In ventilation, too, these modern windows excel their timber forebears, for they can be designed to open over 66⅔ per cent of their area as against the maximum of about 45 per cent possible with wood windows.

Cost, the steel-window people assert, is no greater for steel windows than for wood windows, largely because steel windows are more cheaply installed. They are shipped by the manufacturers completely assembled, eliminating the tedious work of fitting wood sash and equipping them with hardware. Moreover wood trim can be completely done away with, for these windows have no weights to be concealed in boxes at the jambs, and can therefore be built directly into the masonry walls.

Finally, and best of all from the school board's standpoint, maintenance costs on steel windows are extremely low. Aside from the painting which would normally be given any wood window, the steel ones require no attention. They possess the enduring qualities of dead soft open-hearth steel and are unaffected by weather changes of any kind. There seems little cause for doubting the statements of reliable manufacturers of these windows that they will last as long as any building in which they may be installed.

* * *

CONCISE and authoritative information regarding the suitability of paints, varnishes and similar finishing materials for various classes of work is contained in a most attractive Architects' Specification Manual, published by the Oakley Paint Mfg. Co., 711 Antonia street, Los Angeles.

The manual is extremely well done from a typographical standpoint and contains more than 40 pages of helpful specifications and a third as many more of detailed descriptions of Oakley products. The manual is informative and interesting and should prove of practical value to the profession.

Haws Model No. 6A

There is a HAWS model for every architectural purpose.

HAWS SANITARY DRINKING FAUCET COMPANY 1808 HARMON ST. BERKELEY, CAL. U.S.A.

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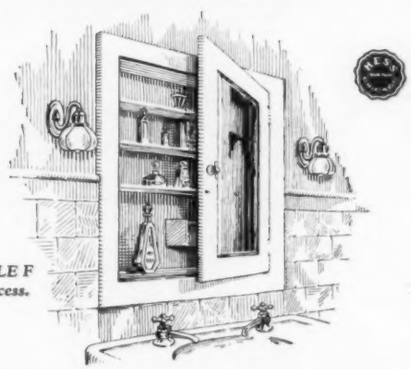
HESS CABINETS and MIRRORS
Snow-White Steel



STYLE F
to recess.

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Samples submitted without charge.

See Sweet's Index; or write for booklet and prices.

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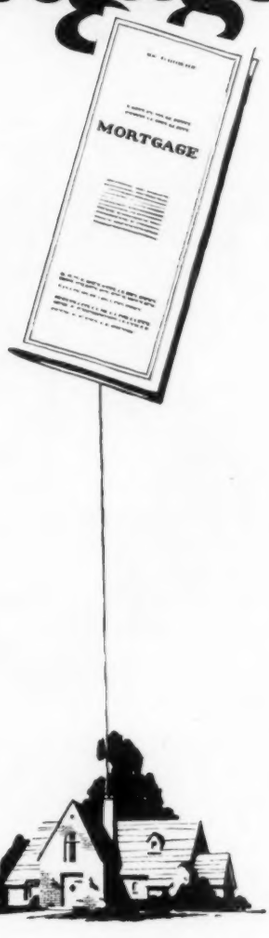
Walk up and meet your Door Jamb
When Gentlemen Plasterers wore Ruffles and Swords
Meet the Dusty
He wanted a Quick Sale
The Pharaohs' prescription for Good Plastering
Yes - but have you been inside?
When England went to Rome for its Plasterers
Tenants Lost
Don't pay for Daubing and expect Plastering
May we send you this Portfolio ?

THE Educational Advertising Campaign on the importance of Good Plastering launched this summer by the Blue Diamond Company of Los Angeles is particularly interesting to architects. It discusses plastering only from the standpoint of the best interests of builders and the building industry. It doesn't mention any brand of plaster or any group of building contractors. The newspaper advertisements (a few of which are shown in miniature above) have been reproduced in the form of a portfolio, which will be gladly sent to any architect on request.

BLUE DIAMOND COMPANY
Producers and Manufacturers of Quality Fireproof Building Materials.
1650 Alameda Street · Los Angeles

The "third mortgage"

... and how to eliminate it when you build



EXPENSIVE repairs, rapid depreciation, high painting charges, frequent renewals —these are the things that constitute the "Third Mortgage" in building. This constant drain of depreciation is the price you pay if you build with perishable materials.

Fortunately, this costly "Third Mortgage" is becoming obsolete in California. Builders have found a better way to save money without mortgaging the future. Brick is the answer. Brick builds beautiful, comfortable homes that defy time and depreciation.

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Brick literature mailed free on request.

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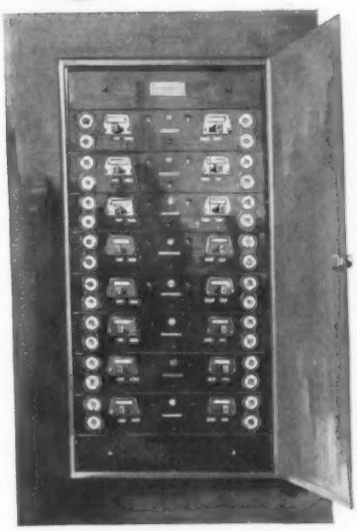

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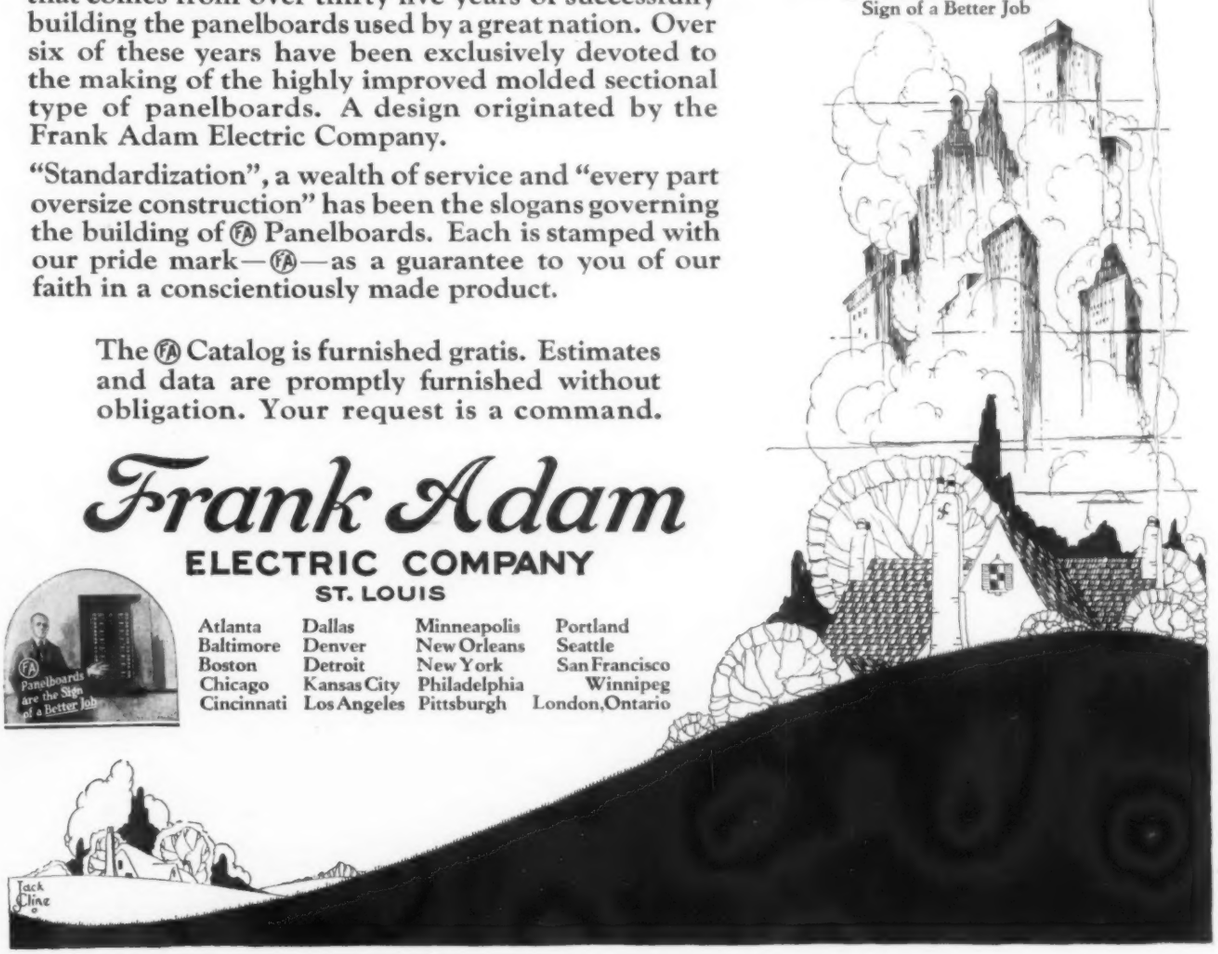
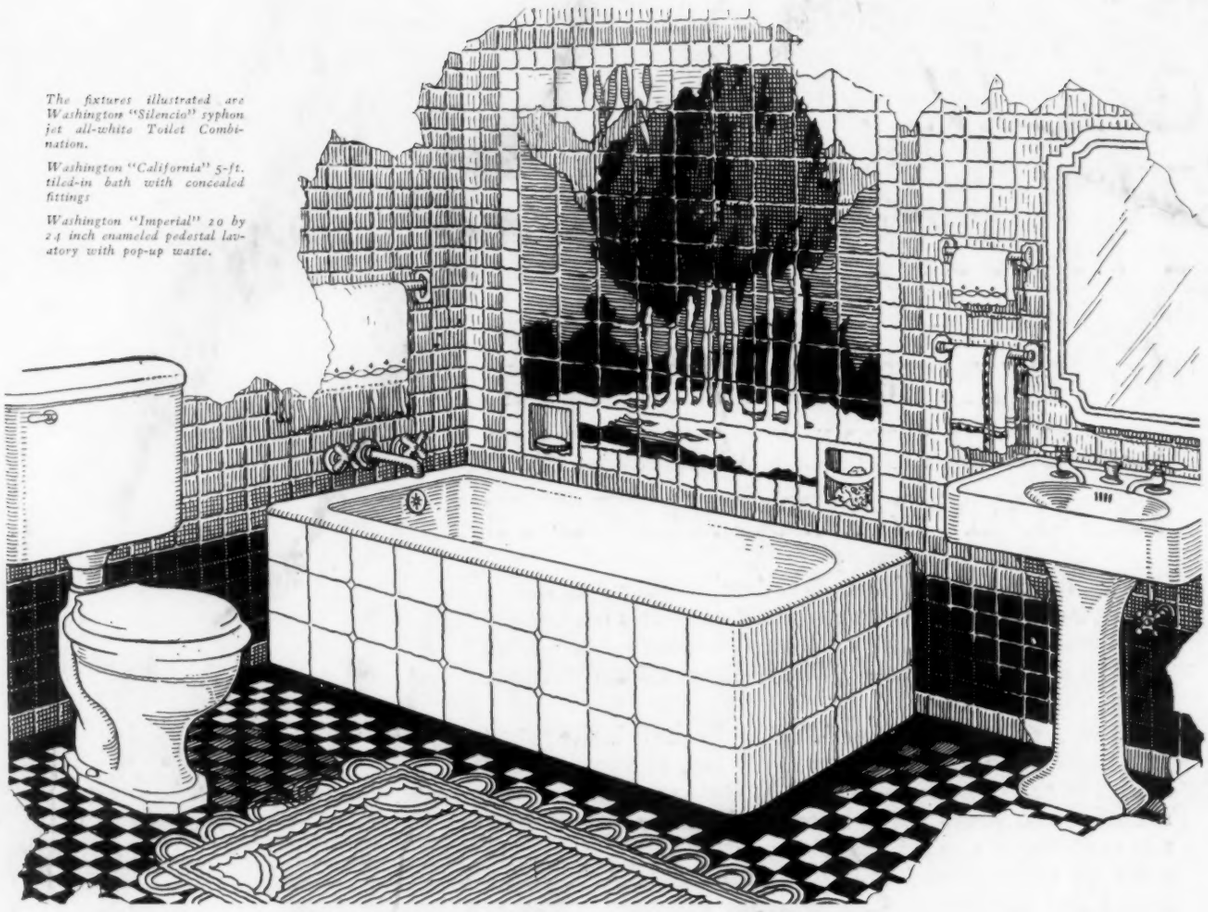


The fixtures illustrated are Washington "Silencio" syphon jet all-white Toilet Combination.

Washington "California" 5-ft. tiled-in bath with concealed fittings

Washington "Imperial" 20 by 24 inch enameled pedestal lavatory with pop-up waste.



Design An *Original* Bathroom

Anyone who sells homes will tell you that an unusual or artistic bathroom and kitchen gives a big sales advantage.

There is hardly any limit to the number of unusual, attractive effects that can be easily created by using the Washington "California" bath illustrated.

You can place this bath in a half-dozen different positions. And because it is tiled-in you can create unusual tile designs or patterns in colored composition material which assure individuality for each bathroom.

The "California" bath pattern was originated by the Washington Iron Works and has become one of the most popular bath fixtures made. Quality and satisfaction are assured, when you specify "Washington Fixtures", by the written guarantee furnished by the Plumbing Contractor and endorsed by the Washington Iron Works agreeing to free replacement should factory defects develop after installation.

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